

**RAMAIAH**  
Institute of Technology

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# SUDARSHANA 2019

Annual College Magazine



**RAMAIAH INSTITUTE OF TECHNOLOGY**  
(Autonomous Institute, Affiliated to VTU)

# **RAMAIAH INSTITUTE OF TECHNOLOGY**

## **VISION OF THE INSTITUTE**

To be an Institution of International Eminence, renowned for imparting quality technical education, cutting edge research and innovation to meet global socio-economic needs

## **MISSION OF THE INSTITUTE**

**RIT shall meet the global socio-economic needs through**

- Imparting quality technical education by nurturing a conducive learning environment through continuous improvement and customization
- Establishing research clusters in emerging areas in collaboration with globally reputed organizations
- Establishing innovative skills development, techno-entrepreneurial activities and consultancy for socio-economic needs

## **QUALITY POLICY**

We at Ramaiah Institute of Technology, strive to deliver comprehensive, continually enhanced, global quality technical and management education through an established Quality Management System complemented by the synergistic interaction of the stakeholders concerned.

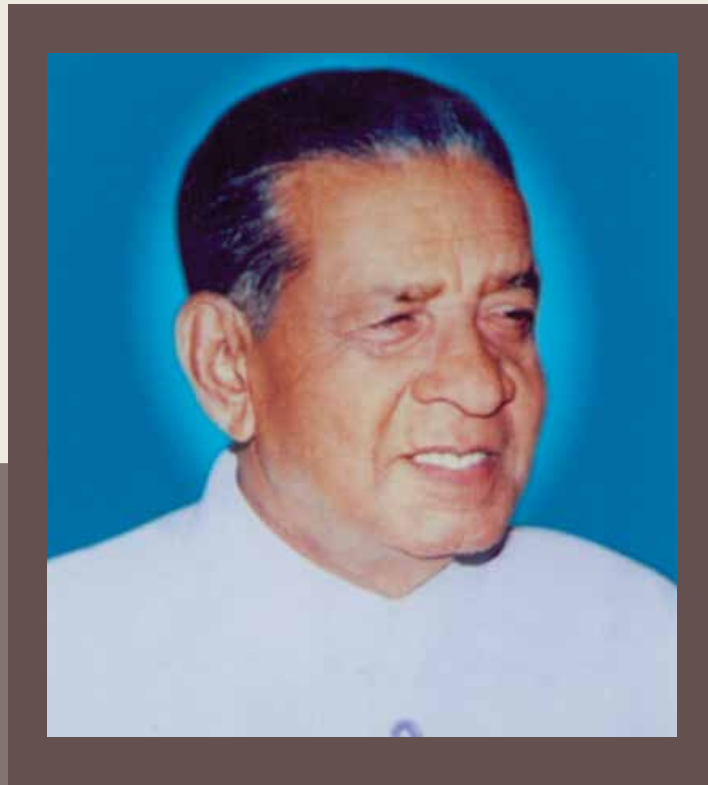
## **MSRIT is Ranked**

# **64<sup>th</sup>**

**among the top 100 Engineering  
Institutions across the Country in  
2019 - as per National Institutional  
Ranking Framework, MHRD,  
Government of India**

**MSRIT is accredited by NAAC with  
“A” Grade**

## A Tribute to our Founder Chairman Dr. M.S. Ramaiah (1922-1997)



Industrious and enterprising, Dr. M. S. Ramaiah is among Karnataka's illustrious sons and an engineering contractor of national repute. He founded 'Gokula Education Foundation' in 1962 without expecting any kind of assistance from the establishment with an objective of serving the society. Ramaiah Institute of Technology (RIT) was born under the aegis of this foundation in the same year, creating a landmark in technical education in India. Through the years RIT has imparted quality engineering education, accessible thousands from across India and abroad facing a lack of opportunity to pursue higher education.

Widely acknowledged as a visionary, philanthropist, educationist & industrialist Dr. M.S. Ramaiah personally ensured that the institution which began with just two disciplines, grew phenomenally over the years. RIT now offers Bachelors, Masters and Doctorate programmes in several disciplines and is recognized as one of India's leading names in technical education. The Institution is equipped with state-of-the-art laboratories, well stocked libraries and has highly qualified, experienced and dedicated faculty. In tune with the noble ambitions and aspirations of Dr. M.S. Ramaiah to develop the institution so as to become a 'Jnana Sagara', all departments are continuously engaged in implementing appropriate procedures to initiate, include and conduct unique programmes keeping in touch with the emerging requirement of the industry.





**Dr. M.S. RAMAIAH MEMORIAL LECTURE BY PROF. ALURU SEELIN KIRAN KUMAR  
FORMER CHAIRMAN ISRO.**



**INAUGURATION OF PRADARSHANA - 2019**



## MAGAZINE COMMITTEE

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**Dr. N V R Naidu**

Principal

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Electronics Engineering

# EDITORIAL

From the Editors desk

Here we present “**SUDARSHANA**”, the long awaited magazine of RIT for the year 2019-2020. The name of the magazine, “Sudarshana”, just means “Beautiful”. This magazine gives beautiful insights into the RITians’ way of life, their creativity and activities. This magazine is a platform that exhibits the literary skills and innovative ideas of teachers and students. “Sudarshana” presents the hard work and dedication of students and contributions of teachers.

We would like to thank all our editorial team members for helping us to pull this through. We express our considerable appreciation to all the authors of the articles in this magazine. These contributions have required a generous amount of time and effort. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible. This effort is a reflection of the quote by Helen Keller - “Alone we can do so little; together we can do so much.”

Editorially yours.....

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## Message from Chairman



**Dr. M.R. JAYARAM**

Chairman, GEF & RIT

Education is the ability to meet life situations. With diligence laced with knowledge and intellect, one can soar to heights. The thrust of education at RIT is not only to produce Engineering degree holders but the bright young men and women equipped enough to foray into the world with an all round development of personality. Our vision of the Institutions is to impart quality education in all core disciplines of knowledge by developing global leaders who are confident, smart, intelligent, gifted and engaged with life.

The College magazine **SUDARSHANA 2019**, provides an important stage and wonderful platform to the creativity and the hidden talents of the students. I believe that the magazine will reveal the activities, achievements of the students along with their literacy zeal.

My wishes and blessings to the staff and students of RIT.

A handwritten signature in black ink, appearing to read 'M.R. Jayaram'.

(M.R. JAYARAM)

# Message from Vice Chairman and Director



**Sri. M.R. SEETHARAM**

Vice-Chairman, GEF & Director, RIT  
Former-Minister, Govt. of Karnataka

It is indeed a great pleasure to note that **SUDARSHANA 2019**, Ramaiah Institute Technology college magazine is being released. At RIT, we have taken every possible step to develop the necessary infrastructure, technology, facilities, curriculum and extracurricular activities. The empowerment of students for their all-round development through education is our cherished motto. Today engineering education means much more than merely acquiring knowledge. It is acquisition of knowledge and skill sets, building character and improving employability of our young talent, the future leaders. In this regard, **SUDARSHANA 2019**, is another endeavour of the college to showcase the talents of staff and students

Best Wishes

A handwritten signature in black ink, appearing to read 'M.R. Seetharam'.

(M.R. SEETHARAM)

## Message from Secretary



**Sri. M.R. RAMAIAH**

Secretary, GEF & Director, RIT

An academic institution plays a great role in changing the society and its people in the sphere of academic, social, economic, moral and physical development. In this regard, Ramaiah Institute of Technology is forever committed in bringing out the all round development of the student since 1962.

**SUDARSHANA 2019**, is the college magazine through which our students can expose their literary and artistic talents. Achievements of students in curricular and extracurricular activities are highlighted in the magazine. I congratulate the editorial team for their efforts in bringing out the magazine and wish each of our students the best.

(M.R. RAMAIAH)



## Message from Chief Executive



**Sri. B.S. RAMAPRASAD** IAS (Retd.)  
Chief Executive, GEF (Engg. and Gen. Sci.)

“The mind is not a vessel to be filled, but a fire to be kindled” said Plutarch. Our vision at Ramaiah Institute of Technology is to kindle the fire in all our students. Focused academic pursuits, along with a wide range of extra-curricular and co-curricular activities makes RIT one of the best Engineering Institutes in the country. I am happy to learn that **SUDARSHANA 2019**, showcasing the talent of the students and faculty is being released.

Best Wishes,

A handwritten signature in black ink, appearing to read 'B.S. Ramaprasad'.

**(B.S. RAMAPRASAD)**

## Principal's Message



**Dr. N V R NAIDU**

Principal, RIT

“Learning gives creativity, Creativity leads to thinking, Thinking provides knowledge, knowledge makes you great” Quote by Dr. A P J ABDUL KALAM Ramaiah Institute of Technology has been progressing year on year since its inception and today it is one of the prestigious institute in India. The college presents a happy blend of traditional and modern education where knowledge is imparted to the students so that they may occupy a better place in the modern competitive world and develop all round personalities retaining the beauty of mind and intellect as well as of soul. It has made its mark in academic, sports and cultural fields. I can feel proud of its Alumni who are holding responsible position in social, political and economic life of the nation.

**SUDARSHANA 2019**, serves as a platform to showcase literary and artistic talents of our faculty, students and alumni. This magazine has recorded achievements such as: conferences attended by staff members and students, competitions won by the hugely talented students, innovative projects carried out by students with the guidance of staff, among others. They stand as a witness to the monumental efforts taken by the management to make the college a centre of excellence in education and research. I would like to appreciate the editorial committee members of Sudarshana-19 for bringing out a well edited booklet.

My heartfelt Congratulations and best wishes to our graduating students.

A handwritten signature in dark ink, appearing to read 'NVR NAIDU', followed by a horizontal line.

**(N V R NAIDU)**

## DEPARTMENT OF CIVIL ENGINEERING

### About the Department

The Department of Civil engineering was started as the third department in the institute with an intake of 60 students in the year 1971. Structural Engineering is first Post Graduate program started in the year 1984 of the institute with an intake of 10 students. The UG program has been accredited by NBA for four times and recently it was accredited for the years 2017-2020. After obtaining the autonomous status in the year 2007, the department focused towards providing state of the art curriculum development, offering electives of the present day need and techno innovative projects. These initiatives resulted in enhanced performance of the students in terms of increase in placement, increase in the number of students writing competitive examinations and pursuing higher education in the foreign universities.

Further Department of Civil Engineering was recognized as a research centre in the year 1994 leading to PhD/MSc in Civil Engineering under Bangalore University till 1998 and later it was brought under State Technological University VTU. The research centre has attracted 30 PhD research scholars to pursue their degree from this research centre and 15 research scholars have completed PhD degree. The areas of research include Structural Engineering, Transportation Engineering, Geo-Technical Engineering, Water resources Engineering and Environmental Engineering.

The Department has close interaction with number of industries and Government agencies

through R&D, and consultancy works. It also has MOU's with industries and other institutes for improved interactions and coordination with outside world.

### List of Conferences Conducted

1. The third international conference on "Recent Advances in Engineering Sciences (ICRAES) 2018", was organized jointly by Civil Engineering, Mechanical Engineering, Industrial Engineering, Chemical Engineering and Bio-technology departments of RIT on 26<sup>th</sup> & 27<sup>th</sup> September 2018.

### List of Workshops Conducted

1. One day seminar supported by demonstration titled "Concrete Mix Design" was organized by ICI student chapter in the Department of Civil Engineering, Ramaiah Institute of Technology on 13<sup>th</sup> April 2018.

2. A six day Faculty Development program on "Current Issues of Geo-environmental Pollution" was organized by Department of Civil Engineering, Ramaiah Institute of Technology, from 23<sup>rd</sup> to 28<sup>th</sup> July, 2018.

### Publications

Number of Publication in National Journals : 1  
(Scopus indexed)

Number of Publication in International Journals : 3  
(Scopus indexed)

Number of Publication in National Conferences : 1

Number of Publication in International Conferences : 9





# DEPARTMENT OF MECHANICAL ENGINEERING

## About the Department

The Department of Mechanical Engineering commenced in the year 1962 with an intake of 60 students. The department has grown strong over the last 57 years with the intake rising to 180 students educated by a teaching staff comprising 53 members. The department was awarded the autonomous status by the VTU in the year 2007. Master's degree program in Manufacturing Science and Engineering and Computer Integrated Manufacturing were introduced in the year 1985 and in 2004 respectively to create adequate opportunities to scholars with a desire to pursue career in research and education. The Department also offers research program which includes MSc Engineering by research and PhD degree from VTU and at present 44 researchers are pursuing PhD.

All the staff members have post graduate degrees and 29 of the staff members are having doctorates. The staff members of the Mechanical Engineering department have taken up a number of research projects funded by many external agencies like DRDO, DST, AICTE, and VTU and have received funding to the tune of more than Rs. 1 Crore. Faculty members from the department have published books in different domains of Mechanical Engineering and these books are recommended by the

Visvesvaraya Technological University's Board of Studies as reference and text books. The department has also contributed in developing intellectual property for the institute by obtaining a patent and currently is in pursuit of three patents.

## List of Workshops Conducted

1. One-week Faculty Development Programme on Fundamentals of Material Sciences for Research Scholars, 30<sup>th</sup> July – 4<sup>th</sup> Aug 2018.
2. The Third International Conference on Recent Advances in Engineering Sciences (ICRAES-2018), 26<sup>th</sup> - 27<sup>th</sup> September 2018.

## Publications

Number of Publication in National Journal : Nil

Number of Publications in International Journal : 42

Number of Publication in National Conference : Nil

Number of Publications in International Conferences : 20



# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## About the Department

The Department was started in the year 1962 along with establishment of college. The department is recognized as a Research Center by V.T.U in the year 2003 and M.Tech program Computer Application in Industrial Drives was started in the year 2004. The research areas of focus are Power Systems, Power Electronics, Drives, HV Engineering, HVDC, MEMS, Electric Vehicle and Renewable Energy Sources.

The Department has set up a Center of excellence in Process automation and Control in Collaboration with Schneider Electric, Bangalore. An MoU is signed with National Instruments India Pvt. Ltd. to establish NI LabVIEW Academy.

The Department is involved in following Research/consultancy projects:

- Design & Development of IVG and HCG Systems at CABS funded by Centre for Air Borne Systems, Bengaluru, Amount Rs. 44.49 Lakhs. Duration : November 2018 - November 2021.
- Lightning Protection Design of Quartz/ Cyanate Ester Radome for LCA for AESA Radar funded by Advanced Systems Laboratory (DRDO), Hyderabad, Amount Rs. 23.33 Lakhs. Duration : February 2019-August 2021.

- Development of Prosumer driven Integrated Smart Grid funded by DST, New Delhi, Amount Rs.33.32 Lakhs. Duration : July 2018-June 2021.

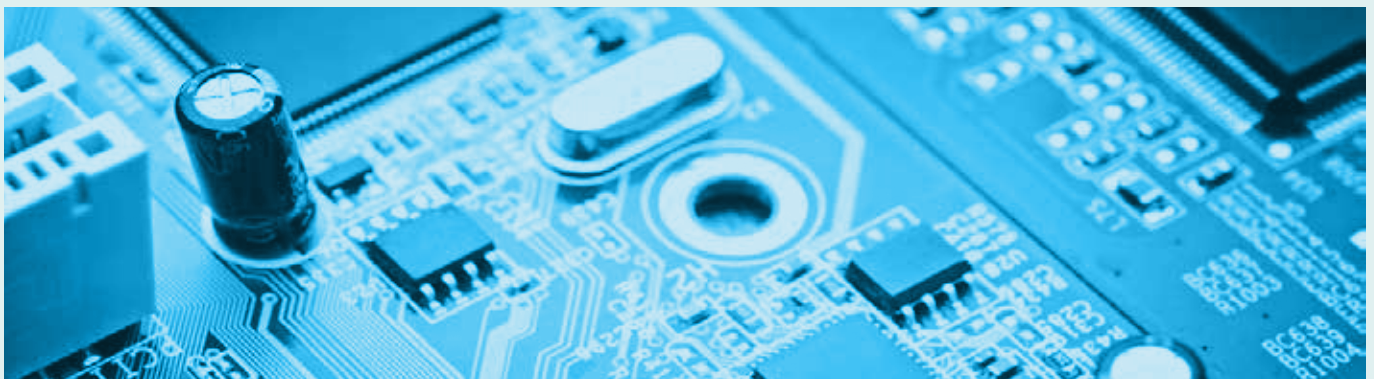
## List of Workshops Conducted

1. Department organized a three day Workshop on “HVDC Transmission Systems Recent Trends”, from 21<sup>st</sup>-23<sup>rd</sup> March , 2019, as a part of funded research project from CPRI, Bangalore.
2. Department in collaboration with VI Solutions Pvt. Ltd, Bangalore organized one week Faculty Development Programme on “Connecting LabVIEW to the Industrial IOT- A Hands on Approach ”, from 28<sup>th</sup> Jan-1<sup>st</sup> Feb, 2019.
3. Department in collaboration with Li2-Innovations organized one week Faculty Development Programme on “Building Learning Machines”, from 16<sup>th</sup> -21<sup>st</sup> July, 2018.
4. Department organized a two week “Hands on training on Embedded Systems and IOT”, from 25<sup>th</sup> June to 7<sup>th</sup> July, 2018.

## Publications

Number of Publications in International Journals : 04

Number of Publications in International Conferences : 05



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### About the Department

The Department of Electronics and Communication Engineering was started in 1975 and has grown over the years in terms of stature and infrastructure. Department offers one undergraduate program with an intake of 120 and two postgraduate programs, Digital Electronics & Communication was introduced in 2002, and VLSI & Embedded systems was introduced in 2013 with intake of 30 and 18 respectively. It is recognized as a research centre by VTU Belgaum, whereby candidates can register for pursuing M.Sc. (Engg.) / Ph.D, centre has 15 research scholars and 6 scholars have completed Ph.D. during 2018. The department has received funding for research from Vision Group on Science and Technology, Govt. of Karnataka, AICTE, FAER and KSCST. The department consists of highly qualified and experienced faculty members who have won several accolades and recognition in academics. The Department has well equipped simulation and electronics laboratories, along with Research and Development facilities.

### Funded Projects

Total amount sanctioned: 32.15 Lakhs during the year 2018-2019.

**Funding agencies :** VGST, FAER, KSCST and AICTE

### Consultancy Projects

Total amount sanctioned: 6.25 Lakhs during the year 2018-2019.

Funding Agencies: Gemini Electro Corporation, Department of Kannada Art and Culture, Govt. of Karnataka and KK Constructions.

### List of Workshops Conducted

1. "Millimeter (mm) Wave MIMO and Filter Bank Multi-Carrier (FBMC) Technologies for 5G Networks with Capstone Project" during 25<sup>th</sup> to 28<sup>th</sup> July 2018.
2. "Network Simulation (NS3) & Next Generation Mobile Networks" during 23<sup>rd</sup> to 28<sup>th</sup> July 2018.
3. "RF Circuits and Systems" during 23<sup>rd</sup> to 28<sup>th</sup> July 2018.
4. "Building Learning Machines" during 16<sup>th</sup> to 21<sup>st</sup> July 2018.

### Publications

1. Number of publications in International Journals: 09
2. Number of publications in International Conferences : 32



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### About the Department

The Department of Computer Science and Engineering (CSE) was established in the year 1984 to meet the needs of the emerging IT industry and research. The department started with an initial intake of 60 students in UG programme, CSE and enhanced its intake to 120 in the year 1994. The department has well qualified, experienced and dedicated teaching and non-teaching staff. Three of the faculty members are awarded their Doctoral in this academic year and many other faculty are pursuing their doctoral studies. In the year 1998, the department started M.Tech in Computer Science and Engineering and in 2014 the department started M.Tech in Computer Network and Engineering. The curriculum for both UG and PG at the department of CSE provides both breadth and depth across the range of engineering and Computer Science topics with industry standards. The department conducts vocational courses and proficiency courses during summer term on the various subjects pertaining to Computer Science, both for our students and students of other colleges in the state. In March 2019, apart from the regular curriculum, the department has started the PG Diploma, Big Data & Analytics and AI in association with IBM. This program is conducted both by the IBM and faculty of the CSE department and it is open for our students, staff, students from other colleges and working professionals. The department has state of the art laboratories like SAP, IBM Centre of Excellence and CUDA learning center. The department being accredited by National Board of Accreditation (NBA) since 2010. The department has MoUs with leading IT Industries like NVIDIA, SAP, IBM and HP. The CSE department also hosts several

activities such as Project Exhibition, ACE Tech Fest and Alumni Meet. The department also organizes Conferences and Seminars. Eminent industry and academic experts participate as resource persons. The department of CSE has 100% placement track record every year. The R & D activity is very active in the department. The faculty has been publishing in refereed journals and conference proceedings. Faculty are also indulged in publishing Books and Book Chapters related to wireless networks, Cyber Physical System, Cloud Computing, Big Data, and Internet of Things.

### List of Conferences Conducted

1. Annual IEEE Sponsored "International Conference on Circuits, Control, Communication and Computing", which was held on 3<sup>rd</sup> - 5<sup>th</sup> October, 2018, MSRIT.

### List of Workshops Conducted

1. Two-Day Symposium on "Women in Engineering: Empowering Innovation and Leadership Qualities", 8<sup>th</sup> and 9<sup>th</sup> March, 2019.
2. Faculty Development Programme on "Blockchain Application Development using Hyperledger", 28<sup>th</sup> Jan to 2<sup>nd</sup> Feb 2019.
3. Faculty Development Programme on "Devops", 21<sup>st</sup> to 25<sup>th</sup> January 2019.
4. Faculty Development Programme on "Network Simulation (NS3) & Next Generation Mobile Networks", July 23<sup>rd</sup> - 28<sup>th</sup>, 2018
5. Cisco - MSRIT Summer Course Program Network, Information and Data Security, July 2<sup>nd</sup> - 13<sup>th</sup>, 2018.

### Publications

1. Number of Publication in International Journals : 30
2. Number of Publication in International Conferences : 52

## DEPARTMENT OF CHEMICAL ENGINEERING

### About the Department

Started in 1978, the Department was the first to offer a course in Chemical Engineering by a self-financing engineering institution in Bangalore and the fifth to be started in RIT. The Department is certified four times in succession by the National Board of Accreditation. Over 2000 students have graduated in 34 batches. The department offers excellent infrastructure and students have won various prestigious awards, international internships and high accolades for innovative projects. A testimony to this is the fact that the Bangalore Regional Centre of the Indian Institute of Chemical Engineers is functioning from this department for almost a decade. The country's most prestigious event in Chemical Engineering CHEMCON-2011 was organized at MSRIT.

The department is approved as Research Center by VTU for acquiring higher qualification leading to M.Sc. (Engg.) and Ph.D degrees. The expertise of the faculty Engg. by research covers a wide range of disciplines and they are engaged in cutting edge technological research. The department has several sponsored projects from DRDO, DST and IEL.

The students are encouraged to participate in co-curricular activities like organizing seminars, invited lectures, industrial visits, etc. The conducive professional atmosphere helps the students in their all-round development and to become dedicated to profession. The department takes pride in its past achievements and has the dream and action plans to make it as one of the best Chemical Engineering Department.

### List of Conference Conducted :

1. International Conference on Recent Advances in Engineering and Sciences ICRAES - 2018.

### List of Workshops Conducted

1. Modelica for Chemical Engineers in Association with Modelicon Infotech LLP- 4<sup>th</sup> May 2019.

2. Application of Autocad in Process Equipment Design-30<sup>th</sup> July to 4<sup>th</sup> August 2018.

### Publications

Number of Publications in International Journals: 11

Number of Publications in National Conferences: 06

Number of Publications in International Conferences: 14



## DEPARTMENT OF MEDICAL ELECTRONICS

### About the Department

The Medical Electronics Department at M. S. Ramaiah Institute of Technology (MSRIT), Bangalore was started in the year 1996. The department is offering 4-year full time B. E. degree course in Medical Electronics, affiliated to VTU, Belgaum, recognized by Government of Karnataka, approved by AICTE, New Delhi and accredited by NBA. The department is recognized as a research centre by VTU and is actively involved in R & D activities in the area of Biomedical signal and image processing and Instrumentation. The department has been actively involved in conducting workshops, FDP's, Industrial visits and seminars to provide a platform for sharing and spreading the latest developments in the field of Medical engineering ethics. The Department is a part of IEEE EMBS Bangalore chapter and IEEE EMBS student chapter. The Department is also a part of IEEE System Man and Cybernetics (SMC) Bangalore chapter. The Department has 13 faculty members, five of them have PhD, one faculty submitted thesis and five members pursuing PhD.

### List of Conference Conducted

1. Organized IEEE EMBS First International Student Conference (ISC2018) from 19.12.18 to 21.12.18 at Ramaiah Institute of Technology.

### List of Workshops Conducted

1. One Week FDP on Medical Instrumentation and Signal Analysis using VI platform (A2A), 9-14, July 2018.
2. One week Faculty Development Program on Advanced DSP Applications using TMS320C6713/6748 from 30.07.18 to 04.08.18.

3. A Hands on session using Neural Networks based on Matlab was organized on 13.02.19. Final and pre-final year students attended this session.

4. The IEEE EMB Student Chapter has organized Hands on session on Technical Writing using LATEX and IEEE Authorship on 20.02.19. Dr. Dhanu from IEEE Bangalore office and Mr. Raghu, Ph.D Scholar delivered the session.

5. Two Day Hands on Session using ITK-VTK on 27.02.19 – 28.02.19. Mr. Nandish from MIT, Manipal and Mr. Ali delivered the sessions.

6. One day workshop on “Deep Learning with Python” for the 6<sup>th</sup> semester students on 19<sup>th</sup> March 2019. The analytical speakers, Mr. Aditya Pai and Shreyas Hervatte from IISc, Bangalore were invited to give an insight on the basics of Deep learning and it's features.

### Publications

Number of Publication in National Journal : 01

Number of Publications in International Journal : 06

Number of Publications in International Conference : 12

Number of guest lectures delivered by the department faculty : 08

### Funded Projects

Total amount sanctioned: 20 Lakhs during the year 2018-2019. Funding agency : DST.

## DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

### About the Department

Department was established in the year 1992 and became autonomous institute (affiliated to VTU) in the year 2007. On 16<sup>th</sup> December 2017, the department celebrated its silver jubilee celebrations by inviting all the alumni and ex Hods and felicitating them. The department is certified thrice in succession by the National Board of Accreditation (NBA), Certified with 'A' grade by NAAC and was ISO 9001:2008 certified till January 2016. Department was secured majority of the university ranks. Achieved hat-rick in getting 1<sup>st</sup> rank when the institute was under the university. The department has state of the art Instrumentation and Automation Laboratory with Allen Bradley PLCs and Schneider SCADA Systems. The expertise of the faculty covers a wide range of disciplines and they are engaged in cutting edge technological research. The department has active MoU with Mitsubishi Electric India Private Ltd.

The Department offers excellent infrastructure and student innovation centre to motivate the students to do innovative projects. All faculty members are actively participating in R&D activities. Department regularly conducts workshops and faculty development programmes for updating their knowledge skills. Regular interactions with Alumni and Guest Lectures from industry are organized on latest technology and National and International Conferences are organized. Every year, students are encouraged to participate in cultural fest called Udbhav and organize a Technical fest called Upakaran. Students' projects are selected for KSCST and Alumni funding. Our Students win prizes regularly in contests organized by leading industries like ABB, TI, FREESCALE etc.

Students have undergone internships in renowned organizations like ABB, ISRO, HMT, HAL etc. They have won various prestigious awards, international internships and high accolades for innovative projects. A number of students have published papers in National and International journals. Students are constantly involved in extra-curricular activities. A Student started a start up "Hyperbloom" at IIMB supported by DST and TI India and providing Internship to RIT students.

### List of Workshops / FDP Conducted

1. FDP on Medical Instrumentation and Signal Analysis using Virtual Instrumentation Platform (A2A), 9- 14 July 2018.
2. EDUMEET on Factory Automation, 20 July 2018.
3. FDP on Advanced DSP applications using TMS320C6713/6748 (30 July -4 Aug 2018)
4. FDP on Connecting LabView to the Industrial IoT (IIoT)- A hands on approach, 28 Jan 2019 to 1 Feb 2019.

### Publications

Number of publications in International Journals:  
2

Number of publications in International Conferences : 7

Number of publications in National Conferences:  
15

## DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

### About the Department

The Department of Information Science and Engineering (ISE) was established in the year 1992 with the objective of producing high-quality professionals to meet the demands of the emerging field of Information Science and Engineering. The department started with UG programme with an annual sanctioned intake of 30 students and the intake was enhanced to 60 seats in the year 1999, to 90 seats in the year 2001 and then to 120 seats in the year 2008. The department started M.Tech in Software Engineering in the year 2004. The department has been recognized as R&D center by VTU. The department has well equipped laboratories. Some of the laboratories have been set up in collaboration with industries such as Intel, Apple, Honeywell, EMC2, Nokia Siemens and IBM. The department has been accredited by the NBA.

### List Workshops/FDP conducted

1. A three-day training program on “Artificial Intelligence and Machine Learning using Julia language” was conducted by instructors from Julia Inc. from 2<sup>nd</sup> to 4<sup>th</sup> May 2018.
2. One-week hands-on workshop on “Practical Statistical Machine Learning and Data Science with Julia” was conducted from 11<sup>th</sup> to 16<sup>th</sup> June 2018. Dr. David Sanders from UNAM, Mexico conducted the practical sessions.
3. One Week FDP on “Computational Machine Learning and Artificial Intelligence: Enabling cutting-edge skills to build the future” was held during 18<sup>th</sup> to 23<sup>rd</sup> Jan 2018. Dr. Alan Edelman, Professor of Applied Mathematics, Massachusetts Institute of Technology (MIT), USA was the FDP Trainer.

4. A Talk on “Security in Wireless Networks” was given by J Harshan, IIT Delhi on 17<sup>th</sup> July 2018.

5. One-week FDP on “Network Simulation (NS3) & Next Generation Mobile Networks” was conducted from 23<sup>rd</sup> to 28<sup>th</sup> July, 2018, by resource persons from Ettus Research, National Instruments Company, Santa Clara, California, USA, Tejas Networks, Spirent Communications USA.

6. Skill development programme was conducted for Mathikere resident housewives from 23<sup>rd</sup> July to 8<sup>th</sup> Aug 2018 in association with NSS.

7. Local Hack Day, a global Hackathon sponsored by GitHub and Microsoft was conducted on 1<sup>st</sup> Dec 2018.

8. One-day workshop on “Virtual and augmented reality” in association with Happy Mango was conducted on 16<sup>th</sup> Nov 2018.

9. Five-day DevOps workshop from 21<sup>st</sup> to 25<sup>th</sup> Jan 2019 was conducted by Mindtree, IBM, Honeywell, IISC, Skillrary, Aikaan Technologies, Stride and MSRSAS.

10. Two-day hands-on workshop on IOS development using Swift was conducted by Apple Developers Group (ADG-VIT) and Developer Student Club, VIT, Vellore, during 30<sup>th</sup> to 31<sup>th</sup> Mar 2019.

### Publications

Number of Publications in International Journal: 25

Number of Publications in International Conference: 7

Number of Book Chapter published: 2

Number of Books published: 2



## DEPARTMENT OF TELECOMMUNICATION ENGINEERING

### About the Department

The Department of Telecommunication Engineering was established in 1996 to address the increasing demand for professionals with expertise in communication and networking technology in India. The graduate engineering program is governed by a robust and dynamic Quality Management system which covers all academic and co-curricular activities including course revision, delivery, evaluation, laboratory assignments and seminars. The department has state of the art laboratories, equipment's, resources and committed faculty having best of the academic and industry recognition. The department started an M.Tech program in Digital Communication Engineering in the year 2004. The department has a Research Centre which was started in the year 2012. Department has collaborations with some of the leading industries (e.g. Nokia, Honeywell, Intel, ARM-Nuvoton and Ericsson) and with leading national and international universities, enabling the department to focus on R&D, and thus providing new avenues for PG/UG students for placement and higher studies

### List of Workshop Conducted

One week FDP on "RF Circuits and Systems" was jointly organized by the Departments of Telecommunication Engineering and Electronics

& Communication Engineering during 23<sup>rd</sup> to 28<sup>th</sup> July 2018 and Technically Supported by IEEE Sensor Council IETE Bangalore and IMAPS.

### Publications

Number of Publications in International Journals : 07

Number of Publications in International Conferences : 02

### Funded Project

#### Ongoing

1. Dr. Viswanath Talasila, Professor got Rs. 54.9 lakhs DST funded project during 2015-2018 under for the project titled "Developing a prosumer driven integrated smart grid".

2. Dr. Viswanath Talasila, Professor got Rs. 33 lakhs DST funded project under Mission Innovation, Smart Grids Innovation Challenge during May 2018 for the project titled "Developing a prosumer driven integrated smart grid".

#### Submitted

1. Dr. B K Sujatha, Professor & Head and Dr. Swetha Amit, Assistant Professor have submitted the funded project proposal to VGST for the project titled "Centre of Learning for setting up Microwave and Antenna Lab".



## DEPARTMENT OF BIOTECHNOLOGY

### About the Department

Established in 2002, the Department of Biotechnology offers a four year B.E. Biotechnology Program with an intake of 60 students and a two year PG Program, M.Tech in Biotechnology with an intake of 18 students. The department also offers a job oriented diploma course (Biotechnology Skill Enhancement Program in Biopharmaceutical Technology - BiSEP) with an intake of 20. The B.E Biotechnology Program is accredited by NBA. The Department is also a recognized Research Centre by VTU, Belgaum, offering M.Sc (Engg.) by research and PhD programs. The Department has excellent infrastructure and state of the art laboratories. All the class rooms in the department are spacious, well-furnished and equipped with LCD projectors. The department library houses ample number of books, in addition to the central library facility. The Department has 16 faculty members, 12 of them are PhD holders and the others are M.Tech holders pursuing Ph.D. Many of the faculty members have post-doctoral experience in premier institutions in India and abroad.

The faculty members have competence in core areas of biotechnology viz. food and agricultural biotechnology, health and medical biotechnology & environmental biotechnology and bioprocess engineering. The department research is focused towards these core areas and funded by national and state funding agencies like AICTE, DST, VGST, VTU and RGUHS. The student research projects have been funded by VGST, KSCST and MSRIT alumni association.

Total amount of Funding received by the Department (2018-2019) – Rs. 185.10 lakhs

### Publications

1. Number of Publications in International Journals : 11
2. Number of Publications in National Conferences : Nil
3. Number of Publications in International Conferences : 11



## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

### About the Department

The Department of Industrial and Production Engineering was established in the year 1979 as a part of Mechanical Engineering. The Department got separated as an independent department in the year 1984. Industrial and Production Engineering department was renamed as Industrial Engineering and Management in 1992. The department was under Bangalore University from 1979 to 1998. The department is under Visveswaraya Technological University (VTU) from 1998. The department was accredited by the NBA in the year 2001 and reaccredited in 2004, 2010 and 2015. M.Tech. programme commenced in the year 2012. The Department of Industrial Engineering and Management is backed by highly motivated and result oriented staff members. All the faculty members have obtained their master's degree, with 8 having doctorate degree from prestigious universities and 3 faculties are pursuing their PhD. Behavioral Science Research Centre is setup in collaboration with Columbia / Stanford University - USA & National University of Singapore. MOU with Cimtrix Pvt. Ltd., and Starya Mobility Pvt Ltd., Bengaluru.

The faculty are actively involved in R&D activities by getting funds from reputed funding agencies like DST, AICTE, UGC & VTU. The society of Industrial Engineering and Management, "INDEMAN SOCIETY" established in the year 1996, was formed with the intention of bringing out

the hidden talents of the students and to expose them to latest technological developments. The society is engaged in organizing invited lectures, industrial visits and other co-curricular activities.

### Grants Received

MODROBS (Modernization and Removal of Obsolescence Scheme), funded by AICTE, Rs. 8,25,000/-.

One week FDP on "Data Science - Impact on Business Decisions", funded by VGST Rs. 2,00,000/-.

Research Grant: Design, fabrication and characterization of selective catalytic reduction catalyst structure for DeNO<sub>x</sub> applications funded by VGST - Rs. 5,00,000/-.

### List of Workshops Conducted

1. International Conference: 01
2. Faculty Development Programmes : 03

### Publications

Number of Publications in National Journals : 03

Number of Publications in International Journals  
15

Number of Publications in National Conferences :  
01

Number of Publications in International  
Conferences : 38

## DEPARTMENT OF PHYSICS

### About the Department

Physics Department has a team of dynamic and well qualified faculty (all with Ph.D) with a passion for research. Majority of them have more than 15 years of teaching experience and more than 10 years of research experience. The Department has very good infrastructure, well equipped spacious laboratories, computational and research facilities. The department is recognized as a research center by VTU in 2008 and four PhDs have been awarded from the department till now. Five research projects with external funding to the tune of Rs. 50 lakhs from BRNS and VGST have been successfully completed. Two faculty development programmes (FDP) have been successfully conducted by the department in last one year.

### List of Workshops Conducted

1. Faculty Development Programme on "Functional Materials for Industrial Applications" during 23<sup>rd</sup> – 28<sup>th</sup> July 2018
2. Faculty Development Programme on "Advanced Materials for Science and Engineering (AMSE-2019)" during 28<sup>th</sup> January – 2<sup>nd</sup> Feb 2018.

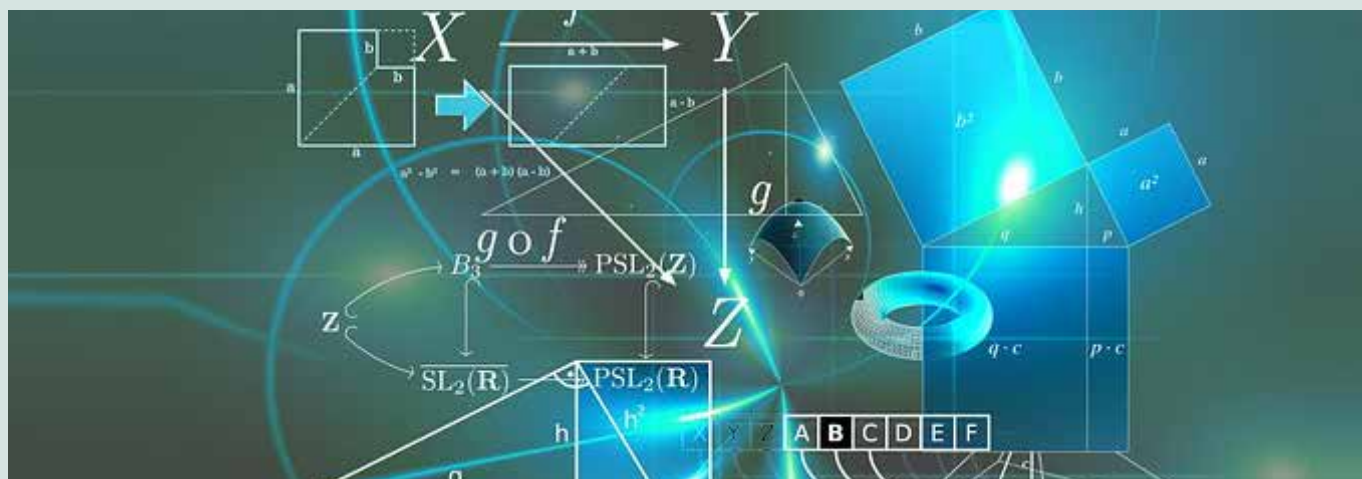
### Publications

Number of Publications in National Journals : Nil

Number of Publications in International Journals : 22

Number of Publications in National Conferences : 02

Number of Publications in International Conferences : 02



## DEPARTMENT OF MATHEMATICS

### About the Department

The Department came into existence in the year 1962 along with the institution itself to teach mathematics for electrical engineering and mechanical engineering students. In those days mathematics was taught in all the five years of study and in the fifth year mathematics was offered as an elective subject which plenty of students used to take and scored very high marks. Thus mathematics has remained always a popular subject and even today it is a popular subject in its own way.

In tune with this progress of the institution the department of mathematics also grew in size and stature to its present condition consisting of twenty staff members with thirteen Ph.D. holders and remaining are pursuing for their Ph.D degree. Also, department is recognized as a research centre in the year 2004 under VTU. At present, ten scholars have obtained their Ph.D degree, three students have submitted the thesis and fifteen research Scholars are pursuing for their Ph.D degree in the department. To its credits, the scholars of department has taken up many funding projects from various organizations to meet the needs of the industry, research and higher education.

The Department is offering Engineering Mathematics course to I and II year B.E and I Sem M.Tech programme. Open electives are also offered for the students in the seventh semester.

### List of Workshops Conducted

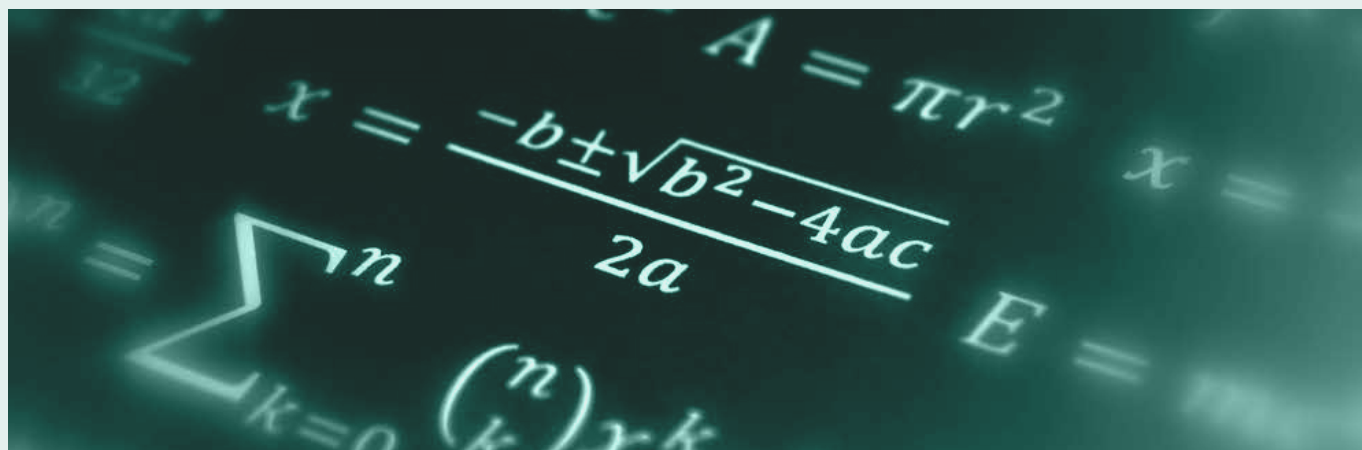
1. One week workshop on 'Applications of Mathematical tools for engineering problems' from 30<sup>th</sup> July to 4<sup>th</sup> August, 2018.
2. One week FDP on 'Emerging trends in Mathematics and its applications' from 28<sup>th</sup> January to 2<sup>nd</sup> February, 2019.

### Publication

Number of Publications in National/International Journals : 28

### Awards

One of the faculty Dr. Dinesh P. A received research publication award for the year 2017-18 under Mathematics from Vision Group on Science and Technology, (VGST) Govt. of Karnataka.





## DEPARTMENT OF CHEMISTRY

### About the Department

The Chemistry Department is one of the oldest Departments (established in 1962) of Ramaiah Institute of Technology. The Department consists of ten well qualified and experienced faculty members. The Department aims at preparing the students for careers in all the fields of engineering aspects and also carry out basic and applied research work. The main activity of the department is to teach engineering chemistry theory and Laboratory courses to the under graduate engineering students of all disciplines. Department is also involved in teaching Technical chemistry and Instrumental methods of analysis for III and IV semester BE chemical engineering students.. The department offers open electives for higher semester students. The department is a recognized research centre by VTU and sixteen research scholars have registered for Ph. D. All faculty members are actively engaged in research work and publishing regularly research papers in reputed international journals. In association with Luminescence Society of India: Karnataka Chapter (LSIKC), Chemistry department is regularly conducting outreach programs related to development of agriculture, farmers and protection of environment.

### List of Workshops / FDP Conducted

1. Functional Materials for Industrial Applications' (FMIA-2018) jointly organized by Department of Chemistry and Physics, in association with Sri Ram Institute of Industrial Research (SRI), Bangalore during 23<sup>rd</sup> -28<sup>th</sup> July 2018.
2. Guest Lecture by Dr. Akella Shivaramakrishna, Professor, School of Advanced Science, VIT University, Vellore on 'Remarkable Flexible Hydrazide based Hyper coordinate Silicon(IV) Complexes' 21-4-2018.
3. Faculty Development Program on 'Advances Materials for science and Engineering' organized by Department of Chemistry along with Physics, Dr. Venkateshvarlu, Principal Scientist, CSIR, NAL, Bangalore was the Chief Guest. 28<sup>th</sup> January to 2<sup>nd</sup> February 2019,

### Publication

International Journals : 30



## DEPARTMENT OF HUMANITIES

### About the Department

The Department of Humanities came into existence in the year 2008. It was established when MSRIT became an autonomous institution. The department consists of six faculty members, with one doctorate and two pursuing. The department engages in teaching Professional Communication, Constitution of India, Kannada, Communication skills for BE/BArch students. Apart from this the department runs special classes/bridge courses in Communicative English to train NRI and rural students in English language usage. The faculty members engage in teaching-learning activities, research publications and conducting workshops for students to build social skills and broaden critical and creative competencies.

The Department is also equipped with an English Language lab. First Year BE students take this course as a part of the subject 'Professional Communication'. Building Vocabulary, grammar, Listening, Speaking skills, Power Point presentations and Group activities form integral part of the course.

### List of Workshops Conducted

1. One day workshop for BE first-year students on 'Electoral process and adult suffrage', on 22<sup>nd</sup> March 2019.
2. The 'Panel discussion' followed by the presentation in One day Workshop and participants had an interaction on 'Electoral process and adult suffrage', 22<sup>nd</sup> March 2019.
3. Communication classes: The department conducts English Communication classes for NRI students' from the first-year BE/B.Arch. and needy students to learn the fundamentals of English language skills.
4. Creative writing sessions: Creative writing sessions in English is being conducted every academic year for BE first-year students.

### Publications

Number of Publications in international journals : 01

Number of Publications in international Conferences : 01



# DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

## About the Department

The Department of Master of Computer Applications was established in 1997 with the objective of producing high-quality professionals to meet the demands of the emerging field of Computer Applications. The department got academic autonomy in the year 2007 and is accredited by NBA. The Department of Computer Applications is recognized as a Research Center under Visvesvaraya Technological University in 2012. The department is able to provide services of high quality to its students because of the motivated and cohesive staff members of the department. The department comprises of eight doctorates out of eleven faculty members. The department has established stable and adequate infrastructure, library and well-equipped laboratory facilities. The Curriculum is framed on par with the standard of IIT/International Universities to enable the students to meet the requirements of industries and to do higher studies.

## List of Workshop Conducted

1. One Week Faculty Development Programme on "Blockchain Application Development using Hyperledger" from 28<sup>th</sup> January to 2<sup>nd</sup> February, 2019.

## Publications

1. Number of Publications in International Journals : 09
2. Number of Publications in International Conferences : 07



## DEPARTMENT OF MANAGEMENT STUDIES

### About the Department

The Department of Management Studies (MBA Programme) was established in 1998 with an objective of creating high quality professional managers to meet the emerging and ever growing demands and challenges of the industry in an ethical and responsible manner. Over the years, the Department has built a strong reputation for its program and graduating students are placed in reputed institutions and leading corporations.

The Department offers a 2 year MBA degree course of Visvesvaraya Technological University (VTU). The department is a recognized Research Centre of VTU and, at present there are 9 Doctorates and 17 researchers are pursuing their Ph.D under the their guidance. Recognizing the quality of management education imparted by our Institution, the Department was the first in Bangalore Region to receive academic autonomy from VTU in the year 2007.

The faculty of the Department are well experienced both in industry and in the academic field. Many of our faculty members have authored books and published papers in leading journals and they have attended national and international conferences and seminars.

The Department has professionals with ample industrial experience as visiting faculty leading some of the significant and contemporary subjects. The Department believes in continually enhancing the expertise of the faculty by deputing them to various workshops and faculty development programs.

### List of Funded Projects/National Seminar

1. Impact of Industry Institute collaboration on Innovation, Entrepreneurship and Higher Learning Outcomes : A study with reference to technical Institutions in Karnataka funded by DST, New Delhi.
2. Assessment of digital inclusion for capacity building among women entrepreneurs - An empirical study with reference to self help groups in the rural areas of Bangalore and Coimbatore funded by NCW, New Delhi.
3. "Industry Institute Collaboration for Transforming Management Education" funded by ICSSR-IMPRESS.

### List of FDP/MDP/National Seminar/Workshop Conducted

- Faculty Development Programme: 01
- National Conference/National Seminar :03
- Workshop: 01

### Publications

Number of Publications in National Journals : 04

Number of Publications in International Journals : 14

Number of Publications in National Conferences : 07

Number of Publications in International Conferences : 02

# SCHOOL OF ARCHITECTURE

## About the Department

The School of Architecture, RIT, Bangalore, established in 1992 is situated in the sprawling campus of MSRIT. Focus of SOA-RIT is to provide quality education, imbibe deep-seated values in academics, design competitions, co-curricular and extracurricular activities and thus create high value forerunners in the field of Architecture. The Council of Architecture, New Delhi, India and AICTE has recognized this program. Programs offered at SOA-RIT are Bachelor of Architecture (B.Arch) 5-year degree program and Masters in Architecture (M.Arch) Landscape Design, 2-year degree program, was started in the year 2011.

The strength of the School of Architecture lies in the fact that the faculty are of various expertise ranging from Professional Office Practices and Ethics, Product Design, Environmental Landscape Design, Planning, Urban Design, Environmental Planning, Conservation, Concrete Structures, Sustainable Building Systems, Infrastructure Systems, Advanced Architectural Design and Visual Arts who nurture the aspiring architects. Overall holistic developments in Architectural Design as well as the social aspects concerning the community are inculcated at all stages in the students.

Students of SOA are continuously participating in various National Level Sports and Cultural competitions and in Architectural Design competitions and fests like NASA and ZONASA and have brought many laurels to the department and the institution at National and Zonal level. "INSPIRIT"- an annual inter-collegiate fest organized by the students and faculty of the department paves way for excellence in creative fields. Nationally and Internationally renowned Architects are invited to deliver talks to inspire

and motivate the students. The annual magazine of the department, "RENDER" brings forward the literary talent of the Architecture family.

Students undergo a mandatory 1-year internship under a COA registered Architect and this provides them with the necessary practical knowledge. After completing B.Arch other possibilities include higher education in a national or an international university; working at an MNC or a private firm, Architectural journalism, freelancing, Govt. jobs, Teaching etc. Alumni association is part of the institute and is actively associated with overall development and progress of the School of Architecture.

## List of Workshops Conducted

1. Render with 3DS Max – from 29<sup>th</sup> Sept. to 2<sup>nd</sup> Oct 2018.
2. Paper engineering - 27<sup>th</sup> Feb 2019.
3. Workshop on Architectural Democracy-16<sup>th</sup> March 2019.

## Publications

Number of Publications in National Journals : 04

Number of Publications in International Journals : 08

Number of Publications in National Conferences: 02

Number of Publications in International Conferences : 16



## PROCTORIAL SYSTEM



**Dr. Annapurna P Patil**

Chief Proctor

The Proctorial System is introduced with an objective of providing supportive care, guidance and mentoring to students to help them with their academic progress while at the campus. Every teaching department implements this process through its faculty and the faculty members are called proctors. The proctors closely monitor the student's performance and interact with students and their parents / guardians. Every Friday the students/parents/guardians can meet up with their respective proctors between 02:40 - 04:30pm to discuss about academic progress of the student.

### **STUDENT INFORMATION SYSTEM**

RIT has in place a web enabled Student Information System (SIS) <http://parents.msrit.edu> that offers students and their parents / guardians up-to-date information about attendance status, marks scored, time table and other information about the student.

A Login ID and password is provided to help them to access this information from anywhere across the globe.

Progress Reports of each student are sent to his/her parents/guardians furnishing the details of Attendance, CIE marks and Examination results. These reports are sent twice in a semester (at the end of 45 days and 90 days). SMS alerts are also sent to parents/guardians about Attendance and CIE marks twice in a semester.

The Institute also has a student counseling facility for the needy students to interact with the counselors. This is open to the students every Friday between 02:00 - 05:00pm.

The Chief Proctor office is situated in Apex Block, level 2 and is open for all students and parents for interactions.

## MSRIT ALUMNI ASSOCIATION

### About the Department

The MSRIT Alumni Association (MSRITAA) was formally established in July 1998, with the initiative from Prof. B Krishnappa, former Principal. A seed Committee was formed and Mr. Shankar Prasad was the first President of MSRITAA. The first alumni meet was organized in 2001. Its executive committee consists of Shri Tallam Venkatesh as President, Principal, MSRIT as Rector and along with two Vice Presidents, two Secretaries, a Treasurer, and eight Members. MSRIT local Chapters at Andhra Pradesh, Tamil Nadu, Cochin, Delhi, Patna, Orissa and Dubai are conducting activities and bringing MSRITians of their region together. More than 15500 alumni have registered for the association.

The association offers Merit and Means Scholarship and Shri Krishna P Godasi Scholarship to the students. Under Merit & Means Scholarship every year 40-45 students are awarded a sum of Rs 10,000/- each and under SKPG scholarship instituted by Sri Ankineedu Maganti, full tuition fee is provided to 20-25 students every year. The association grants project funds to UG and PG project works every year. Every year more than 25 projects are granted funds to encourage students to carryout quality projects. In continuation of encouragement to the students of MSRIT, the Alumni Association awards best projects of the year in each and every department. The Best Projects of UG & PG are awarded during Farewell function. The Excellence shown in the Academic Performance by the students of MSRIT by securing a Rank during the Engineering course is recognized by the association by Gold Medals instituted by distinguished alumni. Rank holders are awarded

Gold Medals instituted by alumni during the Graduation Day ceremony. Distinguished alumni are invited by the departments to address and share their knowledge and expertise. This is held at the Institute level and also Department Level. At institute level Distinguished Alumni Talk Series is instituted.

MSRIT Alumni Association (MSRITAA) has instituted MSRITAA Fellowship Grant was initiated in 2014 to provide financial assistance to faculty members pursuing research projects or plan to conduct research work in advanced areas and requiring research fellows or innovative student's projects of social impact. The support will include a Fellowship of Rs. 5,000/- (Rs. Five thousand only) per month for one year with a contingency grant of a maximum amount of Rs. 10,000/- (Rs. Ten thousand only) per annum. Bus Pass scheme provides the needy student of MSRIT financial support for local conveyance. Every year more than 30 students are supported under this scheme. The association has also instituted a book bank facility and a 3-D printing at the institute. The association also supports the NSS team of MSRIT in arranging Blood Donation Camp every year.



# LIBRARY AND INFORMATION CENTRE

(Welcome to treasure house of wisdom)

## About the Department

The Library came to existence in 1962. The library with its modern collection knowledge resources and innovative information services fills an essential role for students, faculty and the surrounding community in their intellectual pursuits. It is a centralized Air Conditioned fully automated library predominantly related to Engineering, Technology, Management and allied subjects. The collection comprises of 144705 volumes of Books with 38648 Titles and 85 National printed Magazines. The Library subscribes to about 7918 full text E-journals from ASME, ICE, IEL Online (IEEE Journals, Standards and Conf. Proceedings), Taylor & Francis, Elsevier Science Direct, Springer & Emerald Management. The E-Books Subscription package includes around 23956 from Taylor & Francis-CRC Netbase & Springer Link, McGrawhill Education, PAKT Publication, Elsevier Science Direct, New Age International & EBSCO Business Core Collection. In addition, there are 3720 Bound volumes of journals, 4404 CD's & DVD's, 75 Video Cassettes & 1421 IS Standards. All the operations of the Library are automated using Libsys 7 (Release 3.0) software.

Library provides a Plagiarism Checking Tool "Turnitin" used to Check Plagiarism Originality Online and "NetAnalytiks-Sententia" in support of formal writing assistive tool for students and professionals. And "Scopus" Abstract & Citation Database for check Citations and Publications.

## List of Workshops Conducted

1. Library has organized Digital Literacy programme on IEEE IEL Online Journals for MCA Students & Staff on 14<sup>th</sup> May 2019 at MCA Lab, RIT.
2. Library has organized Digital Literacy programme on EBSCO Business Core Collection E-Books for MBA Students & Staff on 14<sup>th</sup> May 2019 at Main Library, ESB Block, RIT.

## Publications

Number of Publication in International Journals  
01

Number of Publications in National Conferences:  
02

Number of Publications in International Conferences : 02



## ENTREPRENEURSHIP DEVELOPMENT CENTRE, RIT 2019

### EMPSYREAL

The Entrepreneur Development Centre (EDC) organised Empyrean with the vision to spread the spirit of leadership and entrepreneurship, to nurture and encourage the expression of creative and innovative ideas and channelize the same to actual implementation. It was conducted this year from 27<sup>th</sup> February to 2<sup>nd</sup> March, 2019. Empyrean aimed to encourage entrepreneurs and provide a platform for their participation. This fest celebrated the skill of entrepreneurship over a huge scale. It basically focused on the development and exposure of the new comers in the field of the Startup world. Empyrean means 'pertaining to the highest sky' where this fest aimed to push the new talents up to. The fest experienced a formal inauguration by lighting of the lamp by the faculty coordinator Shri Chetan Kumar CS, EDC Faculty head, Dr. NVR Naidu, Principal of Ramaiah Institute of Technology and by the chief guest, Shri. Kashyap Karnala, Founding partner at Findmymentors.com on the dias. The head of Entrepreneurship Development Cell, RIT, Nikita Menon, also took part in lighting of the lamp. The main events under Empyrean were B-Plan, Debate, Crowd Pitch and Hackathon. All these events dealt with Business problems and ideas and how to come up with a solution. It also had some non technical and fun events such as IPL Auction, Jam, PUBG, Treasure Hunt etc.



**Following Events have been conducted under EDC During the year 2018.**

### My Story Sessions

'My Story Session' is an informal engagement event that involves candid conversations, ideas, community betterment initiatives and opportunities in business, with prominent tycoons.



**Aparna Athreya**





We had Aparna Athreya, founder member of Bangalore storytelling society. She worked in software development field for 17 long years and now she is known for her influential words. she is also a famous Tedx speaker.

### Panel Discussion



This year, we had an amazing women panel discussion with few beautiful ladies who made a great impact on our lives. One of the strongest character among them was 'Tanvie Hans', popularly known as "The Alex Morgan of India" who had played football for big clubs like Tottenham Hotspur and Fulham. 'Niharika NM', a famous YouTube comedian with 340k followers who gave an outstanding performance in the videos of GIRLIYAPA. We had our moderator 'Ms. Prarthana Jagan' who is a vitiligo model and a famous beauty blogger. She is a student of 3<sup>rd</sup> year, Medical Electronics from our very own college RIT.

### Bert Mueller



He is the director of California Burrito restaurants, Mr. Burt Mueller. In an interactive session with the audience Mr. Mueller spoke about how hard it was to sustain in the Indian market as he was a

foreigner and was not having proper clue about the Indian taste.

### Rosewell Da Cunha (BFC)



We had was Rosewall Da Cunha, assistant manager (operations) at BFC. He started his story as when BFC club was formed he was passing out of college. He had done masters in management studies and his coach informed about this new club coming and that he could try it out. He was passionate about football from his early days and he thought to be a part of it.

### Startup Meet

Date : April 11, 2019

EDC had organised an entrepreneurial meet regarding startup of various companies which led to a huge failure. The objective of the meet was basically giving a case study about companies like Nokia, Kodak, Compaq, Dunkin Donuts which were once well established in India but because of certain wrong decisions they failed and are either bankrupt or are facing huge losses.

We had a very informative discussion among our students where they came up with some really good ideas that could have been taken in consideration by the companies at that time. We felt extremely happy that the ideas pitched about these companies involved acumen with full dedication and enthusiasm. The students wanted to know more about such startups and are interested in more such meets. We had also gifted our best pitchers with a famous entrepreneurial book #ZeroToOne by Peter Thiel.





#### **Startups Incubated by EDC - RIT E-Drive**



Year of Establishment : 2016

Founders:

Mr. Suraj Singh

Mr. Sumit Kumar

A technology driven startup which aims to provide modular electric bicycle conversion kits. The kit can be mounted on any bicycle and convert it into a smart bicycle that aims to improve lives of thousands of people. The company will be launching their product by the end of 2016.

They are a team of riders, designers, dreamers and doers. They might have different job titles, but are united by one goal: to help city-dwellers get from A to B faster, smarter, happier, and in utmost style. They were founded in 2015, All they had back then was a dream of improving lives of the people nationally as well as internationally. .E Drives is an Electric vehicle ODM company and their scope of works lies with the electric two wheeler (bicycle, scooter) and three wheelers.

#### **Aidapp Intelligence Pvt. Limited**

Year of foundation - 2017

Founder and Team - Divyansh Lohia Koushik AS, Daniel Monteiro

At Aidapp, they build products that simplify life. Started by a group of young, enthusiastic students in 2017. They are committed in building revolutionary products with a single vision to transform the sales management in India. Aidapp is driven by the values of solving the problems that we care about the most-to help people achieve more. We innovate in artificial intelligence and over-the-top user experience design implementations to build the next big product that shall empower businesses in decision making. They have built 'Saledrive' - The simplest sales team tracking compliance for enterprises. With Saledrive, worry less about sales management. Coordinate with your team in a hassle-free manner. No more guesswork; everyone knows what they are doing. They currently work from Bangalore (IN) and want to create a supportive and collaborative environment, so that we can learn, build and grow together and move the world forward.

#### **@ DCOM - Marketing and Advertising**

Year of foundation: 2018

Founders:

Mr. Niraj Agarwalla Mr. Nirvana Dogra

#### **Mr. Pratush Maheshwari**

@Dcom is a startup that institutionalized innovative methods of advertising offline. We work to embark a new era of promotion and are very stern with our belief of eradicating pamphlets as means of promoting. We collaborate with people at a grass root level to bring out the most effective form of advertising amongst the youth of the nation. We provide a range of ingenious ways of advertising. By choosing from our methodologies you will be able to advertise on every page printed by a student. Check out some of our advertisement methodologies!! 1. Advertise using a QR. 2. Advertise using a logo of your company. 3. Advertise using watermark of your company. The company can choose any or all of these options for advertisement.

## PRADARSHANA 2019

### OPEN DAY - PROJECT EXHIBITION

Ramaiah Institute of technology, Bangalore organized its Open day Project Exhibition - Pradarshana 2019 on 24<sup>th</sup> & 25<sup>th</sup> May, 2019. The project exhibition provided a unique opportunity for students to promote their conceptual ideas to leading decision makers in the industry. The students unleashed their potential by showcasing their innovative ideas to the dignitaries developed based on either as industry defined or user defined problem. This high level technical event displayed the hardware, software and fabricated projects of undergraduate students from various engineering disciplines under one roof. The main objective of this event was to provide a stage for students to exhibit their skills, to reward their hard work and to motivate the younger generation to strive for excellence. The project exhibition was inaugurated by the chief guest Mr. Indushekar B, Vice President, Volvo India Private Ltd. The dignitaries Dr. MR Jayaram, Hon'ble Chairman - GEF, Sri MR Seetharam, Hon'ble Vice Chairman-GEF, Director RIT, Ex. Minister for Planning, Statistics, Science and Technology, Govt. of Karnataka, Sri M.R. Ramaiah, Hon'ble Secretary-GEF, Director, RIT, Sri. B.S Ramaprasad, Chief of executive- GEF, Sri G. Ramachandra, Chief of Finance - GEF and the Hon'ble Principal of RIT Dr. N.V.R Naidu lighted "Kuthuvilaku"- the lamp of knowledge and set the ball rolling for Pradarshana 2019.

It was followed by releasing of the souvenirs containing the projects of all departments.

The chief guest said that it was his honor to be the part of Pradarshana. He congratulated all the young minds for showcasing their projects. He stressed on Ecosystems of startup, robotics, low cost production, government scheme and on all creation of new contracts which gives new agencies and in turn new jobs. He said that

opportunities are waiting for student's fraternity and faculties. All we need to do is make sure we challenge ourselves and get inspired by these exhibition events such as Pradarshana.

The Chief Executive Sri. B.S. Ramaprasad, GEF congratulated the students on showcasing more than 450 projects which will help in starting the era of new life and technology. He said that "the good ideas that our students showcased today will lead to innovation and help our society and our institution will be in forefront. Dr. Chethan Kumar C.S, EDC & Pradarshana 2019 coordinator accompanied the dignitaries to different project stalls. The Project coordinators of each department and the industry experts evaluated the exhibited Projects.

The event saw a lot of foot fall and was a resounding success.



## DEPARTMENT OF SPORTS

### VTU Sports Achievements

GAME	TOURNAMENTS	POSITION
BADMINTON (MEN)	VTU Bangalore Central Zone 2018-19 held at SEA CE, Bangalore on 27 <sup>th</sup> & 28 <sup>th</sup> Aug. 2018 Finals v/s BMSCE	WINNERS
	VTU Inter Zone 2018-19 held at NMAMIT, Nitte on 30 <sup>th</sup> & 31 <sup>st</sup> Aug. 2018 v/s SJCE, Mysore	3 <sup>rd</sup> PLACE
TABLE TENNIS (MEN)	VTU Bangalore Central Zone 2018-19 held at BNMIT, Bangalore on 3 <sup>rd</sup> & 4 <sup>th</sup> Sept. 2018 Finals v/s BMSCE	RUNNERS
	VTU Inter Zone 2018-19 held at Sapthagiri C E, Bangalore on 6 <sup>th</sup> & 7 <sup>th</sup> Sept. 2018 v/s DSTACE	4 <sup>th</sup> PLACE
TABLE TENNIS (WOMEN)	VTU Bangalore Central Zone 2018-19 held at BNMIT, Bangalore on 3 <sup>rd</sup> & 4 <sup>th</sup> Sept. 2018	Semifinal
TAEKWONDO (MEN)	VTU Single Zone 2018-19 held at VKIT, Bangalore on 11 <sup>th</sup> Sept. 2018	Silver- 1 (63 KG) Bronze- 1 (+87 KG)
BASKETBALL (MEN)	VTU Bangalore Central Zone 2018-19 held at Ramaiah IT on 14 <sup>th</sup> & 15 <sup>th</sup> Sept. 2018 Finals v/s NHCE	WINNERS
	VTU Inter Zone 2018-19 held at Ramaiah IT on 17 <sup>th</sup> & 18 <sup>st</sup> Sept. 2018 Finals v/s NMIT, Bangalore	WINNERS
TENNIS (WOMEN)	VTU Single Zone 2018-19 held at VTU, Belagavi on 29 <sup>th</sup> & 30 <sup>th</sup> Sept. 2018 Finals V/s VVIET, Mysore.	WINNERS
SWIMMING (MEN & WOMEN)	VTU Single Zone 2018-19 held at BMSCE, Bangalore on 3 <sup>rd</sup> Oct. 2018	WOMEN: Gold - 3 (50, 100 & 200m BR) Silver - 1 (50m FS) Bronze - 3 (100 & 200m FS & 200m IM) Women Team Secured 3 <sup>rd</sup> PLACE  MEN: Gold - 1 (4X100m FS) Silver - 2 (4X200m FS & 100m FS) Bronze - 2 (4X100m IM & 100m BR)) Men Team Secured 3 <sup>rd</sup> PLACE
JUDO & WRESTLING (MEN & WOMEN)	VTU Single Zone 2018-19 held at Sapthagiri C E, Bangalore from 15 <sup>th</sup> to 17 <sup>th</sup> Oct. 2018	JUDO MEN TEAM: Gold - 1 (+ 100 Kg) Silver- 1 (81 Kg) Bronze- 1 (66 Kg) Men team Runners Up  WRESTLING MEN : Silver - 1 (92 Kg.)  JUDO WOMEN TEAM: Bronze - 3 (66, 57 & 48 Kg)

## INDIA, STATE & VTU PLAYERS LIST - 2018-19

SL. No.	NAME OF THE STUDENT	SEM	BRANCH	GAME	REPRESENTED FOR	EVENT
1	PRATYANSHU TOMAR	I	MECH BAS-KETBALL	BASKET-BALL	INDIA / VTU	Junior India & South Zone Inter University
2	AYANA HOLLA P	III	ISE	WATER POLO	KARNATAKA	Senior Nationals 2018
3	ANUSHA N	V	MECH	CROSS COUNTRY RACE	VTU	All India Inter University
4	SHWETALI JOSHI	V	TELE	FOOTBALL	VTU	South Zone Inter University
5	ANITHA SARAH KOSHY	V	TELE	FOOTBALL	VTU	South Zone Inter University
6	ISHA MATKAR	VII	IEM	FOOTBALL	V T U	South Zone Inter University
7	MEGHANA B R	VII	E&C	CHESS	V T U	South Zone Inter University
8	P GOWTHAM REDDY	V	EIE	BASKET-BALL	VTU / KARNATAKA	Kholo India -2019 Under-21 & South Zone Inter University
9	DEV MISHRA	III	MECH	BASKET-BALL	VTU / KARNATAKA	Kholo India -2019 Under-21 & South Zone Inter University
10	VISHNU RAMAKRISHNAN	I	IEM	BASKET-BALL	KARNATAKA	Kholo India -2019 Under-21
11	ADI V CHARI	V	CSE	BASKET-BALL	V T U	South Zone Inter University
12	ARAVIND SHREYAS R	I	CSE	SWIMMING	V T U	All India Inter University
13	VISHNU PRASAD	III	M L	WATER POLO	V T U	All India Inter University
14	ARUNDHATI S DESHPANDE	I	EIE	SWIMMING	V T U	All India Inter University
15	MAHIMA RAO	VII	CSE	BASKET-BALL	V T U	South Zone Inter University
16	MANISHA SHETTY	III	E&C	BASKET-BALL	V T U	South Zone Inter University



## In House Activities

**Celebrated 72<sup>nd</sup> Independence Day on 15<sup>th</sup> August 2018 along with other GEF Institutions.**



**Flag hoisted by Sri. M R Seetharam, Hon'ble Vice-Chairman, GEF and Director, Ramaiah Institute of Technology**





## **Celebrated 70<sup>th</sup> Republic Day function on 26<sup>th</sup> January 2019**

All Nine GEF Institutions participated in the Republic Day function. Flag hoisted by Sri. Ramaprasad, Chief Executive, GEF (Engg & GS) and the program witnessed by Sri. G Ramachandra, Chief of Finance, GEF, Dr. NVR Naidu, Principal, RIT, Dr. C G Puttappa, Vice-Principal, Dr. Archana, Registrar Academic and all the Principals of GEF Insitutions.



## **Organization of Memorial Tournaments**

### **Organized 21<sup>st</sup> Dr. M S Ramaiah Memorial State Level Inter Engineering Colleges Cricket Tournament-2018-19 held from 29<sup>th</sup> Oct. to 9<sup>th</sup> Nov. 2018.**

21<sup>st</sup> Dr. M S Ramaiah Memorial Cricket Tournament inaugurated by Sri. B S Ramaprasad, Chief Executive, GEF, Engg. and Sri. G Ramachandra, Chief of Finance, GEF were also presence and Dr. NVR Naidu, Principal, Ramaiah IT, presided the inaugural program. Around Eighteen Engineering Colleges took part in the Tournament.



Ramaiah Institute of Technology Secured WINNERS Trophy in the Tournament

## Organized 13<sup>th</sup> Dr. M S Ramaiah Memorial Basketball Men & Women Tournament 2018 held from 22<sup>nd</sup> to 25<sup>th</sup> September 2018

Tournament inaugurated by Sri. B S Ramaprasad, Chief Executive, GEF and Sri. G Ramachandra, Chief of Finance, GEF



Vote of Thanks by Dr. Kiran Kumar H K,  
Director of Physical Education, RIT



Introduction of the Teams by  
Sri. B S Ramaprasad, Chief Executive, GEF

## Organization of Athletic Meet on 6<sup>th</sup> Oct. 2018



All 15 Branches of our College took part in  
the March Past



March Past salute has taken by  
Sri. G Ramachandra, Chief of Finance, GEF  
and Dr. C G Puttappa, Principal (i/c), RIT



Best March Past Team Winner trophy taken  
by E&C Department



Medals have been distributed to all the prize  
winners



## Organized 3<sup>rd</sup> Intra GEF Institutions Athletic Meet on 16<sup>th</sup> March 2018

We have organized Inter GEF Institutions Athletic Meet. The Athletic Meet Inaugurated by Sri. Ramaprasad, Chief Executive, GEF, Chief Guest of the program and speech given by Sri. G Ramachandra, Chief of Finance, GEF, Guest of Honor of the Athletic Meet function and Presided by Dr. C G Puttappa, Vice-Principal, RIT. All the Principals of GEF Institutions were witnessed the inauguration.

Around Six GEF Institutions took part in the Athletic Meet - Ramaiah Law College, Ramaiah Institute of Management, Ramaiah Arts, Science & Commerce College, Ramaiah University (Peenya Campus and Janagangothri Campus) and Ramaiah Polytechnic College.



Men Championship, Women Championship and Overall Championship Award bagged by Ramaiah Institute of Technology Team



Conducted RPL Ramaiah IT Premier Cricket League T-20 Cricket Tournament (Inter Branch Competition) every year.

## Receiving Cash awards & Prizes from Principal



Pratyanshu Tomar represented India in Senior Basketball Team



Adithya Ramakrishna of VIII Sem Mechanical Represented VTU in AIU Cricket Tournament



Isha represented VTU in AIU Football Tournament



Anushka A Chhabria of VIII Sem Bio-Tech represented VTU Two Times in AIU Tennis Tournament



Goutham Reddy of VIII Sem EIE represented VTU Three times in AIU Basketball Tournament



Sanjit Shekar of VIII Sem Mechanical represented VTU in AIU Basketball Tournament



**The following players are represented India,  
State & VTU for the year - 2018-19**



Winners and Runners of RCL [Ramaiah Cricket League] and RFL [Ramaiah Football League]



Winners of RCL Cricket Tournament  
Electronics & Communication Department



Winners of RFL Football Tournament Civil  
Department



## NSS ANNUAL REPORT 2018-19

### INDUCTION PROGRAMS

Induction programme is an initiative to groom the overall personality of students and make them acquainted with the culture of the institution.

### NATIONAL SERVICE SCHEME FETE

Date: 30<sup>th</sup> August, 2018

The first NSS induction programme for the students of first-year engineering and architecture course was held on 30<sup>th</sup> August 2018. The students were divided into groups of four and each group was given different activities that represent the essence of NSS. The first group was made to play dumb charades, the phrases given to the students were quotes not only based on social service and welfare but also what NSS stands for in general. This showed the students what initiatives the volunteers of NSS are involved in and the experiences they gain.



The idea was to provide the students with social awareness and make them understand what is happening around them and come up with solutions to the many prevalent problems in our world today.

### ECO - FRIENDLY GANESHA MAKING

Date: 6<sup>th</sup> September 2018

Around 50-60 students had assembled for the event. The students were provided with

water and newspapers on which they made the Ganesha idols. The students made the Ganesha idols step by step in an easy and understandable manner. This was followed by an interactive session by Dr. Chandrashekhar and Dr. Putta Bore Gowda. At the end of the event, all the Ganesha idols were displayed. The students enjoyed the event and the serenity of being just with oneself, making the Ganesha idols.

### DEBATE

Date : 15<sup>th</sup> September 2018

Over 20 students had assembled for the event. The NSS volunteers initially gave an introduction about urbanization. They spoke about the psychology of urbanization which made the students to ponder about the topic. Then the students were equally divided into two groups to speak about the pros and cons of urbanization. Each team was allotted 20 minutes to think over the topic. The students spoke about situation of farmers due to Urbanization. They also spoke about how health field can be improved, education system, comparison between urban and rural lifestyle and generation gap.

### SUICIDE AWARENESS PROGRAMME

Date: 14<sup>th</sup> September 2018

Suicide is an act of unintentionally causing one's own death. The cause for this act is depression, stress and substance abuse. Keeping this growing issue in mind we had organized this event. The event was held at ESB small hall. The chief guest for the day was Dr. Ravi Prakash (MBBS, MD, DPM, FIPS) is one of the top psychiatrists and neurologist in Bangalore. We had a speech given by our chief guest Dr. Ravi Prakash during which he explained various problems being faced by our young society,

ways to overcome it and he also gave a brief explanation about various kinds of depression. The event was then followed by a speech given by Dr. Chandrashekar, Ex Mechanical HOD. He explained the types of depression, ways to overcome it.

### **TICK TALK DON'T STOP**

Date : 20<sup>th</sup> September 2018

Social issues exist everywhere. It might be hiding somewhere close to us in plain sight. Maybe we cannot make it disappear. But certainly, we can talk it out.

This activity was conducted to realize that actions start sometimes with getting together and discussing and also that both the problem and the solution lies within us.

### **STOP THINK ACT**

Date : 22<sup>nd</sup> September 2018

Keeping the increasing negligence towards road safety in mind, the event named “ Stop Think Act “ was conducted.

A brief introduction about the event and importance of following traffic rules was given by the NSS volunteers. The total strength was divided into 12 groups, of 4 members each. Each group had to design an attractive poster on road safety, which were later to be put in parking lots of the campus.



### **INK IT**

Date : 27<sup>th</sup> September 2018

On account of ‘Surgical Strike Day’ that is celebrated on the 29<sup>th</sup> of September, we had organized an event named “INK IT” to honor and salute the valiant contributions of our soldiers at the borders.

### **VISION**

Date : 4<sup>th</sup> October 2018

“Vision” was conducted on 4<sup>th</sup> October, 2018 in order to help the students realize the importance of eyesight and make them aware of eye donations.

The event consisted of students doing simple day to day tasks, blindfolded, to help them realize that trivial everyday tasks can also be difficult for people lacking eyesight.



### **SALVAGE**

Date : 5<sup>th</sup> October 2018

In an age where waste is increasing and methods of reuse is of least concern, we conducted an Induction program named “Salvage”. Our main aim was to teach the young minds how to reuse waste paper, plastic bottles, T-shirts and the like. We started by introducing the main objective of the event and we then divided the first years into batches of 5 and each batch was accompanied by an NSS volunteer to guide and help them.

## ORPHANGE AND OLD AGE HOME VISIT

Date: 14<sup>th</sup> October 2018

We had organized an orphanage and old age home visit on 14<sup>th</sup> October, 2018 during which all the teams visited several orphanages and old age homes around college. The pre-visit activities included collection of necessary donations that were handed over to the respective in-charges on the day of the visit. All the volunteers were asked to assemble in college an hour prior to the allotted slot for their visit after which they were taken to their respective orphanages and old age homes. The following are the list of orphanages and old age homes visited by our volunteers this time.

1. Need Base India, Jalahalli
2. Nele Ashakirana and Ashraya Seva Trust
3. Greater Hope Orphanage, R T Nagar
4. Sparsha Trust, Sahakarnagar
5. Kalparaksha Sevashrama, Mahalakshmi Layout
6. Raghavendra Vrudhashram
7. Sri Rama Elders' Ashram, Malleshwaram
8. Vallabhanikethan
9. Kalpa Raksha Sevashram
10. JMJ Old age, Mahalakshmi Layout
11. Sree Old age Home

## AATMARAKSHA

Date : 30<sup>th</sup> October 2018

On account of Rashtriya Ekta Diwas, celebrated on the 31<sup>st</sup> of October every year, to mark the birth anniversary of Sardar Vallabhbhai Patel, we had organized an event named **"AATMARAKSHA"** to highlight the importance of being equipped with the basic skill sets to protect ourselves from various unforeseen situations. We had the assistance from the members of the Combat Club of Ramaiah Institute of Technology, who demonstrated several moves that can be used in different situations wherein we will have to defend ourselves from the attackers.



## 21<sup>st</sup> ANNUAL BLOOD DONATION CAMP

Date : 6<sup>th</sup> December 2018

The 21<sup>st</sup> Annual NSS RIT Blood Donation Camp was organized on the 6<sup>th</sup> of December 2018. The event took place in the ESB Basement of our college from 9:00am to 5:00pm. There were 13 blood banks that joined hands with us in the collection drive this year. The chief guests for the day were Sri. M.R. Seetharam (Vice Chairman, GEF, Director, RIT), Dr. Gananatha Shetty Yekkar (State NSS Officer, Karnataka), Sri. Pawan Wadeyar (Director, Kannada Film Industry) and Sri. Akula Balaji (Anchor and anchor, Kannada Film Industry). Each team was allotted a blood bank and they had to guide the volunteers in their work and assist the blood bank personnel.



The following Blood Banks joined hands with us to make this event a grand success.

1. Indian Red Cross Society
2. Ramaiah Blood Bank
3. Rotary Blood Bank
4. Rashtrorothana Blood Bank



5. Kidwai Blood Bank
6. Victoria Hospital Blood Bank
7. NIMHANS Blood Bank
8. Bangalore Blood Bank
9. Narayana Blood Bank
10. Kempegowda Millennium Blood Bank
11. Life care voluntary Blood Bank
12. Lions Blood Bank
13. Sanjay Gandhi Blood Bank

The motive behind this initiative was to spread awareness about the importance of blood donation and its health benefits. This year we successfully collected 1247 units of blood. The event in all received a great response from the students, staff and the general public.

### **30<sup>th</sup> NATIONAL ROAD SAFETY WEEK**

Date: 8<sup>th</sup> February 2019

Keeping the increasing negligence towards road safety in mind, an event in association with the Transport Department (Yeshwanthpur) was organized on the 8<sup>th</sup> of February 2019 at 2:30 pm as part of the 30<sup>th</sup> National Road Safety Week.



The event was presided by Sri. S. Balakrishna (Deputy Commissioner for Transport & Senior Regional Transport Officer, Bangalore North, Yeshwanthpur), Sri. H Rajanna (Senior Inspector of Motor Vehicle, Bangalore North, Yeshwanthpur) and Dr. Girish Chandra (Professor, Forensic Medicine, M S

Ramaiah Medical College, Bangalore) and Dr. N.V.R. Naidu (Principal, Ramaiah Institute of Technology). We then had Dr. Girish Chandra throw light upon the increasing rate of accidents, the reasons for which he mentioned to be our negligence and our daily routine which involves rushing to different locations within a short span of time. Dr. Girish Chandra highlighted several incidents that he had witnessed himself which added on to the impact of the session.

### **ARTICLE 326**

Date: 15<sup>th</sup> March 2019

With Lok Sabha elections right around the corner, we as responsible citizens of our country have to be well informed about all the information regarding the same. Article 326 - A demonstration of EVM and VVPAT was organized in the ESB Big Seminar Hall to raise awareness about the same. The event was presided by Sri. Sanjiv Kumar IAS, Chief Electoral Officer, Karnataka and Sri. N Manjunath Prasad IAS, District Election Officer, Bengaluru and Commissioner, BBMP along with other officials from the Election Commission of India.



The highlight of the event was the mock voting procedure, wherein the attendees were given an opportunity to use the VVPAT and cast dummy votes and get an idea of how the actual procedure might be. VVPAT is intended as an independent verification system for voting machines designed to allow voters to verify that their vote was cast correctly.

## DR. M. S. RAMAIAH MEMORIAL LECTURE

**Dr. M.S. Ramaiah Memorial Lecture** was organized at MS Ramaiah Institute of Technology on 13<sup>th</sup> May 2019 at 11.00 am. Padmashri Prof. A. S. Kiran Kumar, Vikram Sarabhai Professor and Former Chairman, ISRO was the Chief Guest and delivered the Memorial Lecture. The programme began with the welcome address by Dr N V R Naidu, principal, RIT. The Chief Guest spoke about the Indian Space Program achievements and its history. Remembering Shri Vikram Sarabhai, he informed about the important role Shri Vikram Sarabhai played in shaping the future of space program in the country. This year is his birth centenary, he added. During his lecture he informed how space program is contributing through communication, navigation and earth observation. Predictions of meteorological data such as cyclone has helped managing and mitigating potential disasters.

Space technology is significantly contributing agriculture enabling food security, helping fishermen in good catchments and harvest of wind, solar and wave energy, water management, governance etc. ISRO has 180 successful space missions accomplished and is poised to play an important role in the world through its foray into advance technologies in this field, he added. He concluded remembering Prof. Satish Dhawan's contribution in making Indian space technologies. Younger generation must make use of their knowledge and skills to provide solutions to the problems of society, he added.

Dr. M.R. Jayaram, Chairman, Gokula Education Foundation stated ISRO has made the nation proud and will be at the forefront of world's space technology.

Sri. M R Seetharam, Hon'ble Vice Chairman, GEF & Director, RIT, Former Minister for Planning, Statistics, Science & Technology, Govt. of Karnataka, Sri M R Ramaiah, Hon'ble Secretary, GEF & Director RIT.

Sri B S Ramaprasad, Chief Executive, GEF (Engg. & Gen. Sci) have graced the occasion. The programme concluded with vote of Thanks proposed by Dr C G Putappa, Vice Principal, RIT.





## DEPARTMENT OF EXTRA CURRICULAR ACTIVITIES

### 1 : DR. M.S. RAMAIAH MEMORIAL PARLIAMENTARY DEBATE 2018

SEPTEMBER 22<sup>ND</sup> TO SEPTEMBER 24<sup>TH</sup>, 2018

Dr. M.S. Ramaiah Memorial Parliamentary Debate, or MSRMPD as it is commonly known, is the annual Parliamentary Debate Tournament held by the Literary and Debating Society under the guidance of the Department of Extra-Curricular Activities, which is in its 9<sup>th</sup> edition now. The tournament has grown to become one of the biggest tournaments in South Asia. The 9<sup>th</sup> edition saw participation from all around the globe, with participants from UT MARA, Nanyang Technological University and The Australian National University. The preparation for the tournament began in June. For the coming months, the organizing committee planned every aspect of the tournament and worked to shape our ideas and with the support and guidance from DECA, we successfully mobilized resources to host one of the most successful events in the college.



### 2 : SHOUTOUT – 11 OCTOBER 11<sup>TH</sup> - 13<sup>TH</sup>, 2018

Shoutout, Ramaiah annual theatre fest, spanned the length of three days from the 11<sup>th</sup> of October to the 13<sup>th</sup>. It started with the play 'Gate Thirteen' which left the audience laughing with its comedic quips and a surprise ending. The day continued to more dramatic plays like 'The Rat in the Room', 'The Last Stand'.

'Silence! The Court is in Session' was lauded loudly by the audience. Chiraranga produced exemplary plays with the perfect blend of comedic relief and drama. 'Mukhavada' had a twist that no one saw coming and 'Panjara' had a deep social message

for the audience to soak up after it ended. Day 2 saw more extraordinary plays with an exceptional acting performance.

The judges for short plays, Mr. Prithvi Shiv and Mr. Harshil Koushik, were truly inspiring and amiable. The judges for skits were Mr. Manoj Kumar and Mr. Kairam Vaashi both of them shared some amazing things with the participants and showed exemplary support towards them. Shoutout always leaves the students wanting for more.



### 3 : 19<sup>TH</sup> ANNUAL VTU YOUTH FESTIVAL

“JANANI”

November 2<sup>nd</sup> - 4<sup>th</sup> 2018

Every year, VTU organizes one of the most widely participated cultural extravaganza in Karnataka, at different host colleges affiliated to the university. This year, VTU fest was held from November 2<sup>nd</sup> to November 4<sup>th</sup> at Bheemanna Khandre Institute of technology, Bhalki. RIT was represented at the fest by a selected contingent of 39 talented students, under the guidance of Dr. K.R. Phaneesh and Dr. Sanjay H.S. of the Department of Extra-Curricular Activities. With the encouragement from the college administration and faculty, the contingent was able to participate in the fest without any major hassle or letdown.

At the festival, there were five categories of competitive events, namely, Dance, Music, Fine Arts, Literary and Theater, under which there were several events like “Western Group Music”, “Indian Group Music”, “One Act Play”, “Skit”, “Mime”, “Elocution”, “Debate”, “Cartooning”, “Clay Modeling” etc. We participated in 23 events out of 25 events, making our contingent one of the most diverse contingent at the fest.

It is worth noting that the RIT contingent put up some of the most iconic performances at the fest. Our performances by Classical instrumental solo (Non-percussion), One Act, light vocal solo were some of the most well-received performances as made evident by resounding rounds of applause and standing ovation our teams received.



#### 4. : Dr. M.S. Ramaiah Memorial Quiz Fest

November 9<sup>th</sup> – 10<sup>th</sup> 2018

Dr. M.S. Ramaiah Memorial Quiz Fest, is the annual inter college quiz fest held by Quiz Club MSRIT under the guidance of the Department of Extracurricular Activities. This was the first edition of the quiz fest and saw participation from multiple institutions around the state like RVCE, PES University, BMSCE and NLSIU. With the support and guidance from DECA, we could successfully host a successful quiz fest with great reception from all the colleges that participated. The fest was organized on the 9<sup>th</sup> and 10<sup>th</sup> of November. The quiz fest was host to some of the best quizzers in the city and multiple teams from over 15 colleges participate.

There were 4 events in the fest:

- Potpourri
- SpEnt (Sports and Entertainment) Quiz
- Sci-Biz-Tech Quiz
- General Quiz

Potpourri was hosted by Venkat and Vikas, who are in their 7<sup>th</sup> semester, Computer Science and Engineering. The fest also had extremely reputed quizmasters host the events. The SpEnt Quiz was hosted by Abid Abdulla, an alumni of SRM University and currently is the Head of Content at Cerebrus. He has hosted numerous quizzes at school, college and corporate level. The Sci-Biz-Tech quiz was hosted by one of the most senior quizmasters in Karnataka, Dr. Arul Mani. He is a senior lecturer at St. Joseph's College, Bangalore. A regular name in KQA, the list of Arul Mani's laurels are endless. The last of our quizmasters was one of our alumni, Thejaswi Udupa. He is currently the Director and Head of Product at Roof & Floor. One of the most prolific quizmasters in Bangalore and the Karnataka circuit, we were ecstatic to have him be part of the event.

#### 5 : KANANDA RAJYOTSAVA

November 16<sup>th</sup> 2018

Kannada Rajyotsava has always been the most celebrated event during an odd semester. Kannada Rajyotsava 2018 was no less, as it was organized, publicized and executed with perfection. This edition of Kannada Rajyotsava was held on the 16<sup>th</sup> of November 2018. The events conducted during his Rajyotsava, were well received and appreciated by the college faculty and students. The event was flagged off by a performance by the music and dance team and the following events were conducted.

- Street dance, Photography, Non Kannadiga, Counter Strike, Kannada Poetry, Anthyakshari, Staff Anthyakashari, JAM, Kannada Debate, On-spot Painting, Voice of MSRIT, Hemmeya Kannadiga and Kannadathi & Personality.
- Staff Quiz, Student Quiz, Light Vocals, Creative writing, Face painting, Treasure hunt, Dumb Charades, PUBG, Air Crash, Kabaddi, Cooking without fire, Nanna Kathe & Rangoli.

#### Main Stage Events (16-11-2018)

- Chief guest of the function were Sri. Narasimha Joshi and Sri Annamalai K, IPS.

- Fusion music performance by Indian music team of our college.
- Dance performance by all dance teams of our college.



#### 6 : TEDx 02/03/2019

TEDxMSRIT is an attempt by the students of Ramaiah Institute of Technology, to bring forth people from different walks of life and uniting them under the umbrella term 'Ideas worth spreading'. It provides an opportunity for anyone and everyone to share their ideas that might be beneficial to the society! The TEDxMSRIT society is backed by the Department of Extracurricular Activities. The theme for this year was Mudita, a sanskrit word which means unselfish joy, or the joy we feel by helping others. TEDxMSRIT 2019 edition had an impressive and reputable line of speakers who are well established in their fields of interest. Anuradha Vikranth is a renowned Bharatanatyam dancer known for her vibrancy and grace. She is an 'A' graded artist of Indian Doordarshan. She holds a Masters Degree in Bharatanatyam from the Sastra University, Tamil Nadu. She believes that the main objective of any artist or organization should be to create more rasikas or art-lovers for perpetuation of art in the society and objective of Drishti has always been to project classical dance as aesthetically as possible and impress upon not only the artists and art lovers, but also to popularize it among the common people. Anuradha Vikrant graced the stage with her vibrancy. She also had her students perform while the audience was led to understand what nritta, nritya and natya, the

elements of dance, mean. The TEDxMSRIT 2019 edition ended on a bittersweet note, with more members joining the TEDx MSRIT family and with a promise to meet with more ideas worth spreading!



#### 7 : UDBHAV 2019, MSRIT ANNUAL CULTURAL FEST 25<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup> of APRIL 2019

The Annual cultural extravaganza of MSRIT, that has come to be known as UDBHAV, continues to grow in size and magnitude. This year it was scheduled to be held between 25<sup>th</sup> to 27<sup>th</sup> of April 2019. It is no wonder that across the years it has become one of the biggest and well known fests in Karnataka with a footfall of approximately 15000 people and participants from all the colleges of Karnataka. Udbhav being a melting pot of culture draws the talent of youth from across the state, showcasing the talents that lay dormant in them. Spanning over 3 days, this fest not only provides a platform to its own students but also to various young aspirants across the state. The events are categorized into inter college and intra college to create an atmosphere of maximum exposure to the students. This year we hosted 24 intercollege and 11 intra-college events which enables students to showcase their talents in fields of art of art, music, dance, literature, theatre amongst many others.





## 2019 IEEE- WOMEN IN ENGINEERING : “ACCELERATING ENTREPRENEURSHIP THROUGH INNOVATION”

On the occasion of International Women's Day 8<sup>th</sup> March 2019, IEEE- student branch, Women in Engineering, Affinity Group, Ramaiah Institute of Technology, Bangalore-560054, conducted a Two-Day Symposium with the theme of “Accelerating Entrepreneurship through Innovation”. The objective of conducting this flagship event every year on 8<sup>th</sup> and 9<sup>th</sup> March is to facilitate the development of programs and activities that promote the entry into, and retention of women in engineering programs. IEEE-WIE is a global professional body with the aim of facilitating the recruitment and retention of women in technical disciplines globally.

The Event was graced with the presence of distinguished Chief Guest Dr Geetha Manjunath, founder, CEO and CTO of NIRAMAI, Bengaluru, Guest of Honor Ms. Arthi Narasimhan Transformation manager, Robert Bosch, Bengaluru.

The event was presided by Dr N V R Naidu, Principal, RIT, Bengaluru and the top management representatives of RIT. The event had active participants representing IEEE Student Chair, IEEE, WIE members RIT, Bengaluru, HODs of all depts. at RIT, Student volunteers both UG and PG across all branches.

Successful women achievers from various fields graced the occasion and delivered insightful and inspiring talks to encourage young engineers. Some of the distinguished speakers of the two day symposium included, Ms. Jayashree Sridharan, Assistant Vice President, Cognizant, Ms Chaya Nanjappa, Founder and Managing partner at Nectar Fresh, Mysore and Dr. Savitha Rani M, Training and Placement Officer, RIT.

The Symposium included a panel discussion on “Accelerating entrepreneurship through

innovation”, participated by Bhumika Balani - Tech leader from IBM; Anupama Ravindran- Tax advocate; Manisha Kannur- Executive director from Ace Designers, Padmaja Kankipati- Technical Expert, Rehabilitation Science (SMOI), all of them being Alumnus of MSRIT. Three workshop are also conducted as a part of the symposium, which include topics on Machine Learning, Soft Skills and Cyber security The two-day Symposium saw nearly 250+ students from all over Bengaluru and RIT participating in various events such as Tech quiz, code rush, arduino affairs and Bridge master to name a few. The students also won Prize amount of nearly 10K for each events. The Symposium concluded with a few cultural performances by students as well as the faculty of Ramaiah Institute of Technology. The title sponsor of the event is Ramaiah Institute of Technology which is always been proudly encouraging the activities related to Women and girls in Engineering. The event is co-sponsored by Cognizant, Aris Global, Ace Designers, CUPPA and Prof Bhushan A Matad. The food sponsors for the event are Sri Tunga Canteen, RIT, Bangalore and Adithya Systems, Bangalore. The talks and Workshops are technically co-sponsored by IEEE Bangalore Section, CISCO, Intel and Indegene.



**WIE-TWO Day Symposium, R.I.T, 8<sup>th</sup> & 9<sup>th</sup>  
March 2019**

## ENGINEERING CHALLENGES LOOKING TO FUTURE SPACE EXPLORATION AND TRAVEL

**Presentation by Maj. Gen. Charles Frank Bolden, Jr., Ex-Administrator, NASA in association with M S Ramaiah Institute of Technology on 7 March 2019**

**Maj. Gen. Charles Frank Bolden, Jr.** (USMC-Ret.) was nominated by President Barack Obama and confirmed by the U.S. Senate as the 12<sup>th</sup> Administrator of the National Aeronautics and Space Administration. He began his duties as head of the agency on July 17, 2009. As Administrator, Bolden led a nation-wide NASA team to advance the missions and goals of the U.S. space program. Bolden earned a Master of Science degree in systems management from the University of Southern California in 1977.

In 1978, he was assigned to the Naval Test Pilot School at Patuxent River, Md., and completed his training in 1979. While working at the Naval Air Test Center's Systems Engineering and Strike Aircraft Test Directorates, he tested a variety of ground attack aircraft until his selection as an astronaut candidate in 1980. Bolden's 34-year career with the Marine Corps also included 14 years as a member of NASA's Astronaut Office. After joining the office in 1980, he traveled to orbit four times aboard the space shuttle between 1986 and 1994, commanding two of the missions and piloting two others. His flights included deployment of the Hubble Space Telescope and the first joint U.S.-Russian shuttle mission, which featured a cosmonaut as a member of his crew. Maj. Gen. Charles Frank Bolden, Jr. retired from NASA on Jan. 20, 2017.

On 7 March 2019 Maj. Gen. Charles Frank Bolden, Jr. delivered a presentation on "Engineering Challenges looking to future Space Exploration and Travel" at

M S Ramaiah Institute of Technology from 1.00 PM to 3 PM.

He addressed the students of Ramiah institutions and also held interactions with students of RVCE, BMSCE, BNMIT, NMAMIT and PES University through Direct Video Conferencing.

This event is streamed live on the webpage of the institute ([www.msrit.edu](http://www.msrit.edu)) and in social networking platforms. This event is immensely benefited the students across India as Maj. Gen. Charles Frank Bolden, Jr. has wide experience in the domains of technology and policy making.





## PLACEMENT REPORT

### RECESSION PROOF

**303 COMPANIES.....1282**

**OFFERS 40.63**

**LPA - The highest CTC**

Placements for 2019 batch are still ongoing. The Placement season turned out to be a resounding success with participation from top-notch companies from various sectors. Within no time the high-end companies picked our seventh semester students. Recruiters were extremely satisfied and happy with the quality of students and the way the placement process was conducted. Besides, Placement dept has maintained a sound industry-institute interface, which convinced corporate to look to our campus for recruitment. Placements for the batch of 2019 was a super success and confirmed the growing faith and interest the industry has on RIT and its students.

Biggies from the various sectors such as Adobe, Google, Amazon, SAP, Oracle, Goldman Sachs, Directi, Flipkart and so on made their presence felt by selecting the candidates in significant numbers.

#### Trainings

We impart training (soft skills training and hard skills training) to students, from experts from industry from their training division throughout the year, so that they become competent and motivated engineers and scientists.

#### Our Major Recruiters :

MuSigma, L&T Infotech, Akamai, Bristlecone, Skanray Health Care, SAP Labs, Mahindra, J.P. Morgan, Unisys, Capgemini, L&T Construction, Hindustan Unilever Ltd, ABB, Bosch, Volvo, Commvault, SapientNitro, Aricent, Aptean, Expicient, Google, HP,

Oracle, Tesco, Ernst & young, Societe Generale, Juniper Networks, Caterpillar, Aryaka, Genpact, Infotech Enterprises, Atkins, Avtec, Tractors India, Moonraft Innovation Labs, LangdonSeah, Century link, Inmobi, National Instruments, Bally Technologies, L&T - Integrated Engineering Services, Morgan Stanley, Icreate, Yodlee, Kone Elevator India Pvt Ltd, TD Power Systems Ltd, Obopay, AIG Analytics, AVAYA, Textron, Book My Show, Aatria Power, Target, Vtiger, Grail Research, TechAspect solutions, Sika Interplant Systems Limited, Lam Research, Parker Hannifin India Pvt. Ltd, FICO, Sobha Developers, MCF, L&T Technology Services, JSW Steel, Lakshmikumaran & Sridharan, Abeyti technologies, Brigade Group, Symphony Teleca, Tata Teleservices, Health Asyst, Adobe, Samsung, TE Connectivity, Toyota-Kirloskar, Ansys, Systemantics, Artha and so on.

#### International Placements from :

1. Khimji Ramdas from Muscat, Oman
2. EAMCO, Bahrain
3. EMRILL, Dubai

61 startup companies on campus for recruitment drive & nearly 92 companies are first time visitors

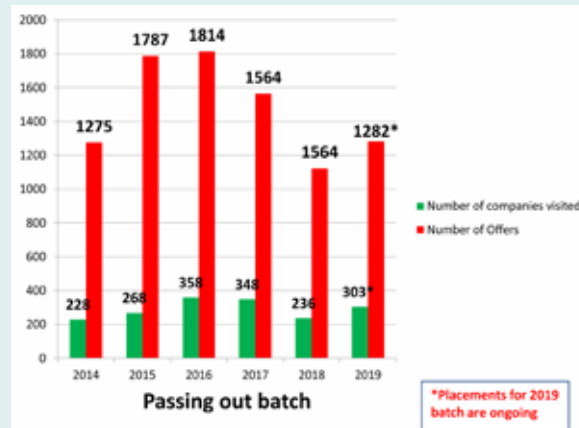
#### Engagement Activities

Technical quiz, hackathon, guest lectures, IWD (International Women's Day), Girls in Technology, Code for Good, Epic Code'15 and so on are the other activities conducted.

#### Diversity recruitment drives :

Recruitment drives were conducted specially for women candidates by the below mentioned companies : 1) Adobe 2) HSBC 3) Intuit 4) SAP Labs

## Placement Statistics for the past 6 years



## Barclays Selected students-2019 batch CTC 8 LPA



**Aditya Angadi**  
USN - 1MS15IS004



**Anam Jawaid**  
USN - 1MS15CS014



**Ankit Goyal**  
USN - 1MS15CS018



**Antariksh Guha**  
USN - 1MS15CS022



**Bhavya Jain**  
USN - 1MS15CS032



**Chimbili Manasa**  
USN - 1MS15CS037



**Kumar Gaurav**  
USN - 1MS15CS145



**Manish Raj Mohanty**  
USN - 1MS15CS064



**Manollas M**  
USN - 1MS15CS066



**Niveditha Chandrasekaran**  
USN - 1MS15IS146



**Rohit Keshri**  
USN - 1MS15IS093



**Sahana Hegde**  
USN - 1MS15IS098



**Sathi Sri Sai Deepthi**  
USN - 1MS15IS102



**Shweta Baindur**  
USN - 1MS15CS122



**Sowmya Sridharan**  
USN - 1MS15CS125



**Sujana D V**  
USN - 1MS15IS126



**Mayank Tibrewal**  
USN - 1MS15IS102



**Keerthi R**  
USN - 1MS15IS051



**Shashidhara R Rao**  
USN - 1MS16MCA52

**Photos of students selected by Intel Technology India Pvt. Ltd.(PAN India highest no. of selects-2018 batch) CTC: 12 LPA**



**Aasia Afreen**  
USN - 1MS14CS002



**Abhijeet**  
USN - 1MS14EE003



**Aditya Barsainya**  
USN - 1MS14CS008



**Ajeya**  
USN - 1MS14CS146



**Anjali S**  
USN - 1MS14EC014



**Apeksha**  
USN - 1MS14IS017



**Girija V K**  
USN - 1MS14IS134



**Harshitha HR**  
USN - 1MS16LDC02



**Keerthana N S**  
USN - 1MS14IS130



**Kiranmayee**  
USN - 1MS16LVS06



**M Sneha**  
USN - 1MS14CS058



**MD Haris Sumair**  
USN - 1MS14CS065



**Meghna Suresh**  
USN - 1MS14EC137



**Monica V**  
USN - 1MS16LVS08



**Niharika**  
USN - 1MS14EC069



**Nikhil Prasad**  
USN - 1MS14CS075



**Nikita Dahiya**  
USN - 1MS14CS076



**Nimisha Premanandan**  
USN - 1MS16LVS09



**Pallavi Ferrao**  
USN - 1MS14IS076



**Pallavi R**  
USN - 1MS14EE030



**Pearl Nishitha Pais**  
USN - 1MS14TE030



**Pramod Kulkarni**  
USN - 1MS14CS084



**Pranitha Patnam**  
USN - 1MS14CS147



**Ranjit Nepal**  
USN - 1MS14CS098



**Samridh Dokania**  
USN - 1MS14CS108



**Satisha**  
USN - 1MS14CS109



**Shreeya**  
USN - 1MS14EE049



**Sumeet K Gadagkar**  
USN - 1MS14EE054



**Taksh Oza**  
USN - 1MS14EC074



**Usha B M**  
USN - 1MS16LVS16



**Vinodh P**  
USN - 1MS14EC130



**Vishal Dhull**  
USN - 1MS14CS139



**Vishal Panjeta**  
USN - 1MS14CS140



## ENGLISH ARTICLES AND POEMS

### The Beauty of Creativity



**Shreyas. M**

USN : 1MS18CV103

Semester : 2<sup>nd</sup>

Dept. : Civil Engineering

What is creativity? Is it always about creating something new? Well not entirely. Creativity need not be always about creating something new from scratch, it can also be about taking things which already exist and combining or modifying them. There is a certain beauty in it. Well, that is what makes Apple different from others.

Today's world runs on creativity. The inventions, the games we play, the movies we watch, the mobile applications we use, the paintings we look at and the architectural designs all require an effort of creative work. A good creative work takes mental effort to come up with an idea and physical effort to implement it. Sometimes, even though you come up with an idea, implementing it might not be easy, hence implementation becomes equally important. Implementation requires practical and realistic idea. However, this is an exceptional case for movies and videogames as the technological advancement has made it possible for the makers to create them the way they want in the virtual world breaking the barriers set by reality. Even with all the advancement in the technology, it takes efforts of Hundreds of people to get the finished product. This shows the importance

of implementation. Even the journalists need to be creative in their words to give a catchy headline for the daily news. Their creative words do attract the readers. Creativity and imagination go hand in hand. Creativity is a product of your imagination. Imagination is the key to creativity. Especially for painters and artists it is an essence to come up with a good work. Even the movie directors and comic artists should have a good imagination to make a scenario. Importance of Imagination has been stated by great personalities like Albert Einstein and A.P.J Abdul kalam. The authors of various novels and self-help books write solely based on their imagination and life experiences. Creativity is also used by social media pages on Instagram and Facebook to post new memes and quotes every day in order to gain more followers. And creative works always takes time and effort. The present generation gets bored of things very quickly. Why do you think you get updates on your smartphone quite often? Or why do game developers always come up with different mods and skins for your character? It is because people always crave for something new. To keep the users active and satisfy them, few developments are made regularly. And these developments are nothing but a result of creativity.

### Foam Concrete (Lightweight Cellular Concrete)



**Sanjana**

USN : 1MS18CV092

Semester : 2<sup>nd</sup>

Dept. : Civil Engineering

## Foam Concrete

When a special foam is added to cement mortar, it produces a lightweight concrete termed as foam concrete. The lightweight of this concrete is due to air entrapped within the voids. Air bubbles created in this paste of cement is influenced by the type of foaming agent used. The foaming agent used in foam concrete is diluted with water to make a pre-foaming solution which is then forced at high pressure through the foaming lance. This produces a uniform, stable foam which has a volume greater than that of the pre-foaming solution. Cellular concrete ensures sustainable construction and is the need of the time. Recently, research works are done on using recycled glass powder in foam concrete.

### Applications

Foamed concrete can be produced with dry densities of 400 to 1600 kg/m<sup>3</sup>, with 7-day strengths of approximately 1 to 10 N/mm<sup>2</sup> respectively. Foam concrete is fire resistant, and its thermal and acoustical insulation properties make it ideal for a wide range of purposes, from insulating floors and roofs, to void filling. It is also particularly useful for trench reinstatement.

A few of the applications of foam concrete are:

1. Bridge approaches / embankments
2. Pipeline Abandonment / annular fill
3. Trench backfill
4. Precast blocks
5. Precast wall elements / panels
6. Cast-in-situ / cast-in-place walls
7. Insulating compensation laying
8. Insulation floor screeds
9. Insulation roof screeds
10. Sunken portion filling
11. Trench reinstatement
12. Sub-base in highways

13. Filling of hollow block
14. Prefabricated insulation boards.

### Advantages of Foam Concrete

By varying the amount of sand, cement, fly ash, water and foam used to make lightweight concrete, one can change its properties for every job or application. Below are a few advantages of using foam concrete instead of the conventional dense concrete.

1. As it is light in weight, so it has low density and high flowability. Buildings made of precast cellular concrete blocks have a reduced dead weight allowing to construct a lighter frame.
2. This concrete offers great resistance to fire, hence is incombustible. This helps in ensuring a better quality of life for everyone.
3. As foam concrete has a cellular structure, so it absorbs less water compared to the normal concrete.
4. Differential settlement has always been a threat to buildings, but by using this concrete in construction can aid in dealing with this threat as it is less susceptible to differential settlement.
5. Structures constructed of lightweight cellular concrete produces a monolithic, well-bonded structure that does not inflict lateral loads on adjacent structures.
6. To increase the strength of soils on which structures are built, the soil is compacted. If a structure is built from foam concrete then it offers about 100% compacted foundation. Thus, compaction is not required.
7. This concrete saves time and money both.
8. It offers sound absorption and more strength.



### Disadvantages of Foam Concrete

No doubt there are a lot of benefits of using this concrete, but to everything, there is a darker side as well. The foaming agent can be dangerous to human health as well. A special expensive anchorage is required in the case of cellular concrete. This concrete offers more fragility.

## Women Empowerment



### Sagar S

USN : 1MS18CV089

Semester : 2<sup>nd</sup>

Dept. : Civil Engineering

Educate a man and you educate an individual.  
Educate a woman and you educate a family.

A.Cripps

### THE WORLD'S REPORTS

India has been ranked 108<sup>th</sup> in World Economic Forum gender gap index in 2018, same as 2017, while recording improvement in wage equality for similar work and fully closing its tertiary education gender gap for the first time.

Gender gap was measured across four key pillars economic opportunity, political empowerment, educational attainment, and health and survival. "India needs to make improvements across the board, from women's participation to getting more women into senior and professional roles", WEF said. Even now we are facing empowerment issues empowering women is going on across the world but at a slower rate. Empowering women is essential for achievement of sustainable development.

Globally, the youth literacy rate increased from 83 percent to 91 percent over two decades. While the number of illiterate youth declined from 170 million to 115 million. In most recent years for which data are available, young women accounted for 59 percent of the total illiterate youth population.

### INITIATION BY WBG (EMPOWERING WOMEN IN EDUCATIONAL SECTOR)

Every day girl face barriers to education caused by poverty, cultural norms and practices, poor infrastructure, violence, and fragility. The WBG has joined with governments, civil society organisations, multilateral organisations, the private sector, and donors to advance multisectoral approaches to overcome these challenges. Working together with girls and women, the WBG focus includes:-

1. Providing conditional cash transfers, stipends or scholarships.
2. Reducing distance to school.
3. Targetting boys and men to be a part of discussions about cultural and societal practices.
4. Ensuring gender - sensitive curricula and pedagogies
5. Building safe and inclusive learning environments for girls and young women.
6. Addressing violence against girls and women.

Therefore, women empowerment is the process where these small changes bring a bigger change in society.

# Theory of Everything



## Naveen N

USN : 1MS18CV064

Semester : 2<sup>nd</sup>

Dept. : Civil Engineering

At the heart of modern cosmology is the mystery: why does our universe appear so exquisitely tuned to create the conditions necessary for life? For this question the answer is 'MODEL OF STRING THEORY' shows how the mind-boggling idea of multiverse may hold the answer to the riddle of cosmos.

### "REASON FOR THE BIRTH OF STRING THEORY"

According to Einstein theory of relativity, the space time is constant and the space itself is static. It's neither expanding nor contracting. But in 1929 the great astronomer Edwin Hubble realized that the distant galaxies were all rushing away from each other. Establishing that space itself is stretching and expanding. In 1990 the two team of astronomer (Saul Perlmutter, Brian Schmidt, Adam Riess noble prize winner in 2011) measured that the rate of space expansion was speeding up to their surprise. But the controversial question that was raised is what was speeding up? The alibi was an invisible energy which is generally said as the repulsive gravitational pull that was pulling the stars, galaxies, planets etc. This energy is called as "DARK ENERGY". When the astronomers measured the value they found that it was  $1.38 \times 10^{-123}$ .

### "STRING THEORY"

String theory is unified theory of all fundamental laws of physics. A single over arching frame that would describe the all fundamental laws of universe. This theory explains that, if we go deeper into sub-atomic particle we find tiny vibrating filament of energy. When these fundamental vibrating filaments of energy vibrates they form different pattern of candidate shapes and they form of particles. This candidate shapes forms an extra dimension.

Mainly, if we calculate these candidate shapes we can determine the amount of dark energy present in our universe. Initially it was of the range of 5-10 candidate shapes. But gradually it increased to 10500. So many scientist couldn't support the theory with huge number of candidate shapes.

But other scientist turn the issue as each of these candidate shapes would give rise to different dark energy and thus giving rise to different universe. Thus mystery solved multiverse found.

With the help of the 'inflationary cosmological theory', a different mechanism was brought to explain big bang theory. Now melding 'inflationary theory' and 'string theory' here we get the idea of cosmos as, "the quantum field fuel give rise to big bang of many universe and each of these universe has an extra dimension. This extra dimension take a wide variety of different shapes of candidate shapes. These shapes give rise to the different physical features of that particular universe.

This is the theoretical prediction and the main question is that could we ever confirm the existence of multiverse...

## Leadership and Qualities



### Anil C Jaraddi

USN : 1MS16CV013

Semester : 6<sup>th</sup>

Dept. : Civil Engineering

“A leader is one who knows the way, goes the way, and shows the way.” A good leader always makes the difference between the success and failure. He will help in turning the dreams into real stories instead of fulfilling his dreams.

#### Honesty and Integrity

The supreme quality of leadership is the work with honesty and integrity with the team members. It will be there in every field like cricket, army and in a class including politics also. Leaders will succeed when they will have their own ethics, moral values and etc.

#### Confidence

To be an effective leader among our self, we should be confident enough to ensure that other follow your commands and should follow our rules and regulations. If we are unsure about our own decisions and qualities, then our teammates will never follow us. As a leader, we have to be oozing with confidence, assertiveness to gain the respect of our teammates. But we should not be over confident so, hear their speaks also and give the appreciation for their thinking.

#### Inspire Others

The most difficult work for a leader is to inspire others. If we have to inspire then we have to be a better example for others then

only they will be inspired and they will get interested to do work with us. When we have tough conditions in front of us, then the team mates will see the style of approaching. Be calm and have positiveness during that time. At that time, the team will also get inspired. According to John Quincy Adams, “If our actions inspire others to dream more, learn more, do more and become more, then we are the leader.”

#### Commitment and Passion

Our team will look up to us and if we want them to give them their all, we have to be passionate about it too. When our teammates see us getting our hands dirty, they will also give their best work. It will also help us to gain the respect of our teammates and insist new energy in our team members, which helps them to perform better. If they feel that we are not fully committed, then it would be very difficult task for the leader to motivate our followers to achieve the goals in their life.

#### Good Communicator

Until we will clearly communicate our vision to our team and explain the things to achieve the goal, it will be very difficult for us to get the output we want. If we are unable to communicate the message effectively to our team mates, we can never be a good leader. A good communicator can be a good leader. Words have the power to motivate people and make them do the unthinkable. If you use them effectively, you can also achieve better things in the life.

#### Decision-Making Capabilities

A leader should have the ability to take the right decision at the right time. Decisions taken by leaders have a profound impact on masses. A leader should think long and hard before taking a decision but once the decision is taken, stand by it. Also we have to see the benefits and problems faced by the people before decision making.

## Accountability

When it comes to accountability, we need to follow the approach explained by Arnold H Glasow when he said, “A good leader takes little more than his share of the blame and little less than his share of the credit.” Make sure that every one of our team mates is accountable for what they are doing. If they do well, encourage them and if they struggle, make them realize their mistakes and work together to improve. Holding them accountable for their actions will create a sense of responsibility among our team mates and the team mates will go about the business more seriously.

## Delegation and Empowerment

We can't do everything. It's important thing for a leader to focus on the key responsibilities and give rest of works to others. By this, I'm empowering team mates and providing the tasks to them. We have to micromanage the planning of action through it. Provide all the resources and absorb their performances.

## Creativity and Innovation

According to Steve Jobs, “Innovation differentiates between a leader and a follower.” In this fast-paced competitive world, a leader must be creative and innovative at the same time. Creative thinking and constant innovation is what makes us and our team stand out from the crowd. Think with unique ideas and achieve them as goals.

## Empathy

We should have empathy towards our team mates instead of showing the dictatorship on them. A leader should know and feel all the problems of a team mate which will make us as an effective leader with a human being. Provide the solutions for the problems facing by the team mates. Above all are the qualities of a good leader, who have all the qualities in him can become the best human being in this world for the wellfareness of our earth.

## My Life



### Sabina Bhurtel

USN : 1MS17CV101

Semester : 4<sup>th</sup>

Dept. : Civil Engineering

Sometimes, I look at my life with so many flaws,

But think I do think they follow the newton's laws,

The instinct to be someone,

Someone great such that I will not have to introduce myself to the world,

Inspire me to move on and on through the hurdles,

In every twists and curls,

I see myself accelerating towards the path of success,

In my ruthless life full of races,

But in every cases,

I am what you be to me,

Happy or sad, polite or rude, depends on thee.

The energy I have,

Remain the same all the way along,

Sometimes, I move fast

Sometimes slow,

Trying to minimize the interference through the flow.



My mind is a nucleus,  
Positive, negative and the neutral part,  
Living along with me in the cart,  
A reaction cannot happen,

Without the presence of every elements  
Amidst the thoughts in the tents,  
Sometimes vague sometimes clear,  
Running for survival like a deer.

I hope to make my thoughts an amoeba cell,  
So that inside an idea another dwell,  
An idea that never dies,  
An inspiration that never sighs,  
On and on in the course of life,  
I want my ideas to multiply,  
From one to two, two to four,  
Like the waves present in a sea shore.

The universe is mysterious and vast,  
Identically I am growing everyday fast,  
People have a different view on me,  
Some good, some bad,  
But I am not what you see,  
I am full of living planets in my mind,  
A genius sees, doesn't see a blind.

Newton, Einstein and many more,  
Have a contribution in the scientific shore,  
So do many people in my life,  
Struggled, with many untiring hopes,  
Making me what I am today,  
Lifting me up with those blessings and pray,  
Spent their nights in the laboratory of my life,  
Experimenting how I can thrive, in the beautiful course of life.  
Experimenting how I can thrive, in the beautiful course of life.

## God Live by my Side



### Poojith Prakash

USN : 1MS18CSE17

Semester : 2<sup>nd</sup>

Dept. : Civil Engineering

God live by my side, my mother said.

Listening to her, I left the house with pack and cap,

After a great long nap.

He saw me and said "you are first for trek".

I whispered," Hope it won't be my final trek".

Live free climb high the lead said,

I will push the others the sweeper said.

Moving slowly and closely I found the bus,

Keep your bags said Mr. Hus.

I did as he said leaving my burden,

He then gave me a map of Mount Sweden.

We came to halt at a place,

This made my eyes glaze,

In lovely great words the board said "Beware of snake"

Without any mistake we left the place.

After a long run we were at the base,

We finished our break and got rid of ache.

One by one we reached the peak,

We then celebrated our horrible weak,

Since, I was the first one to reach the peak.

The lead then shouted "hurrah we reached the peak",

Jumping in joy we celebrated in Greek.  
 We all saw deer, elephant and birds,  
 We all took snaps celebrating with claps.  
 We then reached base in a stunning way,  
 Expecting more people away.  
 I waved my hand to MR. Lead and MR. Creed.  
 Expecting more treks I left with a plead.

## The Radio Revolution



### Tejas Sandeep Deshpande

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In this 21<sup>st</sup> Century, who would even think of Radio as an effective means of Communication! But our PM did, and today we all know that “Mann ki Baat”, is an extremely famous Radio programme where this National leader addresses Crores of Indians every single month.

But “what makes it Unique? “may question you Right!

Historically we have seen that Radio had been used by former PMs Nehru, Indira Gandhi to address the Nation, tell a lot about their goals etc. But even people had to listen bitter criticism about their opponents. This is where lies the uniqueness, because Mann Ki Baat is not a Political Platform, rather a platform where Revolutionary missions launched by government are Publicized by PM. It is the Platform that made every single Indian aware about “Swatch Bharat”, “Beti Bachao Beti Padhao” and many more such missions.

It is a place where PM shares small anecdotes (short stories) that people all around the country send him, efforts made by few people to make this country a better place are also shared. And even we students get benefit of those stress-relief episodes broadcasted Before exam-time where he not just tells that marks play a minor role in this exam of life, but also advises not to take much stress especially during exam as one will automatically remember stuff when one sits on the bench writing the paper as a result of year of hard study.

Thus, reaching out even to the places where television hasn't still, this programme which means “PM Speaks out his heart”, has been successful to get a place in hearts of lakhs and Crores of Indians.

## The Dark Secret at The Heart of AI



### Pavan Rao

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Last year, a strange self-driving car was released onto the quiet roads of Monmouth County, New Jersey and it showed the rising power of artificial intelligence. The car didn't follow a single instruction provided by an engineer or programmer. Instead, it relied entirely on an algorithm that had taught itself to drive by watching a human do it.

The mysterious mind of this vehicle points to a looming issue with artificial intelligence. As the technology advances, we might soon cross some threshold beyond which using AI requires a leap of faith.

Artificial intelligence hasn't always been this way. From the outset, there were two schools of thought regarding how understandable, or explainable, AI ought to be. Many thought it made the most sense to build machines that reasoned according to rules and logic, making their inner workings transparent to anyone who cared to examine some code. Others felt that intelligence would more easily emerge if machines took inspiration from biology, and learned by observing and experiencing. This meant turning computer programming on its head. Instead of a programmer writing the commands to solve a problem, the program generates its own algorithm based on example data and a desired output. The machine-learning techniques that would later evolve into today's most powerful AI systems followed the latter path: the machine essentially programs itself.

The workings of any machine-learning technology are inherently more opaque, even to computer scientists, than a hand-coded system. This is not to say that all future AI techniques will be equally unknowable. But by its nature, deep learning is a particularly dark black box. We need more than a glimpse of AI's thinking, however, and there is no easy solution. It is the interplay of calculations inside a deep neural network that is crucial to higher-level pattern recognition and complex decision-making, but those calculations are a quagmire of mathematical functions and variables.

Machines that truly understand language would be incredibly useful. But we don't know how to build them. Just as many aspects of human behavior are impossible to explain in detail, perhaps it won't be possible for AI to explain everything it does. If that's so, then at some stage we may have to simply trust AI's judgment or do without using it. Likewise, that judgment will have to incorporate social intelligence. Just as society is built upon a contract of expected behavior, we will need to design AI systems to respect and fit with our social norms. If we are to create

robot tanks and other killing machines, it is important that their decision-making be consistent with our ethical judgments.

## It's Never Easy



### Anagha Bharadwaj

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Dept. : Mechanical Engineering

You should have seen her  
 She wore pride on her sleeves  
 As she walked the roads  
 She wore a smile better than anyone  
 I had ever known.  
 And I spoke to her  
 Just once,  
 I asked her -  
 How are you?  
 She looked straight at me and said, "I'm  
 alright.  
 I always have been.  
 At least that is what everyone has ever told  
 me."  
 You could feel the emptiness behind those  
 eyes  
 You could feel the rawness in her voice  
 You could know she is not alright  
 If only you looked at her,  
 I mean looked her  
 With patience  
 You might --

Just get to figuring her out  
 But she would just turn her head away  
 leaving  
 You in a surprise.  
 The way she walked  
 Told me she had a war fighting in her head.  
 A war she herself couldn't bring to  
 understand.  
 It's like she wanted to scream and tell  
 someone  
 All the little things going on in her head  
 But she looked up politely and said,  
 "I'm fine. When have I never been."  
 It felt like she had a voice in her head  
 Which reminded her how undeserving she  
 thought she was  
 Which reminded how much of a stranger  
 she felt in her own body.  
 Sometimes, when she laughed  
 I felt she did so  
 Only to stop herself from choking and  
 hurting herself  
 What do you do with such people you ask  
 me?  
 Don't tell them you'll be okay.  
 Don't tell them it's just another bad day.  
 Don't tell them to stop over thinking.  
 When they trust you enough to hold your  
 hand  
 Hold it tighter.  
 When they put efforts in saying a few words  
 Without any words  
 Make efforts to listen to them.  
 More than anything,  
 Don't ever make them feel alone more than  
 they already are.  
 You know what?  
 Just stay.

## Exploring our Planetary Neighborhood



### Akanksha Mishra

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There is no place more inhospitable and mysterious than space. This is one of the reasons that it inspires such passion and dedication amongst astronomers, as in spite of our many years of stargazing and spaceflight, we still know very little about the universe in which we live. Great progress has been made in the hunt for planets that lie outside of our solar system. Known as extrasolar planets or exoplanets, analysis of their atmospheres and possible surface conditions allows scientists to postulate on one of the most poignant and scientifically frustrating questions known: Are we alone?

This question has occupied the scientific community since the early nineties. There have been many other forays in search of new planets. The launch of MOST, the Microvariability and Oscillations of Stars project, in 2003 was followed by three subsequent missions in 2005, 2006 and 2009, all supported by the invaluable Hubble Space Telescope. Planet-searching equipment known as HARPS has played a key role from the ground. This blur of acronyms has led to an impressively high success rate; currently, the tally stands at over 680 planets discovered, orbiting over 470 stars — a remarkable achievement in just under 20 years.

The discovery of new exoplanets inevitably leads to questions concerning how many of these worlds could be home to life —



intelligent or otherwise. One recent study tackled exactly this, directly comparing both exoplanets and planets within our own solar system to planet Earth. The 'Habitability' index considered factors such as atmosphere, magnetic field, available sunlight, surface organic compounds and tides. Another index, 'Earth Similarity', dealt with density, distance from parent star and size.

There are a vast range of bodies considered to be habitable, and this raises new questions. For example, who says life should be carbon-based? Is oxygen necessary? Does the planet need a Moon for life to evolve? Does the planet need a solid core? These culminate in a single question: does a planet need to be similar to Earth to sustain life? This question remains unanswered, but as shown by the study above, the answer may lie within our own solar system. Most people have heard of the past history of water on Mars, and recent NASA research has uncovered evidence for liquid water on Jupiter's icy moon Europa. Titan, as previously mentioned, is very Earth-like in many respects, and has not yet been fully explored. The progress achieved by missions such as NASA's PlanetQuest is promising. However, as the search progresses, it becomes apparent just how much there is left to explore in our solar system, galaxy and universe — and just how alien our stellar neighborhood is to us.

## Extracurricular Activities as Differentiators - Why do they matter?



**Abhishek Amar**

Dept. : Alumni

Skilling is a recurring topic in industry/workforce related discussions these days. There appears to be a severe talent crunch - a mismatch, if you will, between demand and supply. Companies just can't seem to find sufficiently employable candidates. In fact, some reports state that employability levels are as low as 4-5%. What stands out to me, however, is that a significant chunk of this skill gap is due to a lack of soft skills and not just technical skills.

Soft skills like communication skills, presentation skills, teamwork and critical thinking top the list of the most desired skills at the workplace. The thing with these skills, however, is that they evolve out of deliberate practice and self-motivation. But what if you could develop one or more of these, while truly enjoying yourself? That's where extracurricular activities come in.

To those of us who have the good fortune of access to a reasonably good education, extracurriculars provide a cost-effective way to develop these skills. Using my time as a student of MSRIT, I'd like to illustrate the skills I was able to develop and polish. These are skills that have helped me tremendously, even as a student of management.

- **Communication/Presentation Skills** - At MSRIT, debating was my passion. It pushed me out of my comfort zone and introduced me to entirely new areas of information. But what it most gave me was an understanding of how to say something with clarity and concision. It's also a skill that is critically underrated and in short supply. While I still have a long way to go before perfecting the art, debating gave me that opportunity over 4 years to transform the way I communicated and interacted.

- **Teamwork** - Ah, that word. Thrown around with so much fervor, yet practiced so little. On the job and in life, however, getting the work done is all about knowing how to work in teams. Be it division of labor,

knowing complementary abilities, bringing in diversity - it all boils down to a fundamental premise of working with others. I learnt some great lessons during the various fests and tournaments at college - from acknowledging that someone was better than me to knowing when to listen and not talk - and they have proved to be invaluable.

- Stress Relief - Yes, this is not a skill. But it is a vital contributor to being happy. And extracurriculars give you just that. The sheer joy of knowing that you'll be in the company of friends, pursuing a hobby/passion, while stimulating your brain cells and picking up a few life skills along the way - all of these are invisible constituents of a holistic education. It isn't all about the books, subjects and grades. So, the next time you sit down to assess yourself (which, by the way, I highly recommend you do frequently), devote a chunk to thinking about stuff outside the classroom, too. Technical skills are important, but they can always be replicated easily. Soft skills are your secret weapon, and can be developed in an extremely fun way. Go ahead - join that society, give your speech, act in a play, help out with the logistics of a quiz tournament. You're sure to pick up something along the way that will transform the way you see the world.

## Beautiful World



### Deepa Anand Patil

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Dept. : Electrical and Electronics Engineering

Everything is beautiful around you, unless you remove the dark lenses.

Everyone is beautiful around you, unless you remove the discrimination from your soul.

Every relation around you is meaningful, unless you remove the selfishness from your heart.

Every smile is beautiful around you, unless you remove the dejection in you.

Every words around you become poem and inspirational, unless you remove the curtains of ears.

Every moment is wonderful around you, unless you remove stress from your brain.

Every touch is beautiful to you, unless you remove your jacket of arrogance.

Every smell is aromatic around you, unless you remove the seething over your nose.

Every sleep is beautiful with dreams, unless you bury the rejections you got.

## Come Inn



### Seerat

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My soul shattered;

My heart Broken;

Yet I hold them together;

without revealing me ~ even to myself!

Than those eyes;  
 those glances;  
 crept in my life;  
 I let him come inn!!!  
 Than one day;  
 His stares stool my broken heart;  
 His glances heal my Shattered soul;  
 I let him to come Inn..  
 I let him come inn;  
 Building high reveals;  
 Promising myself not to reveal my pain;  
 And keep all secrets in Veil...  
 I let him to come inn!  
 But his glances knocked down the wall;  
 Unveiled all the secrets of my dark soul;  
 Uncovering me;  
 Undressing the pain;  
 I knew;  
 Heart started to heal;  
 and my shattered soul started to collect  
 itself;  
 The day, he showed up with concern;  
 I knew; I have found my antidote;  
 To my incurable heart;  
 I let him to come inn;  
 to undress my pain;  
 To unveil my secrets;  
 I showed him scars on my bare soul;  
 And unseen clots on my heart;  
 I let him to come inn;  
 but;

nah ;  
 Does he know;  
 he's my beloved?  
 of so many pieces of my heart;  
 that he glued with his epoxy love;  
 That he fixed with his epoxy care;  
 Does he know?  
 Does my beloved know!  
 The crack via which he crept in;  
 Via which he I let him to him Come inn:  
 Has healed.

## Sometimes I Cry



### Pratik Shitalkumar Khot

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Engineering

Sometimes when I'm alone,  
 I cry because I'm on my own  
 The tears I cry are bitter and warm  
 They flow with life but take no form  
 I cry because my heart is torn  
 And I find it difficult to carry on  
 If I had a ear to confide in  
 I would cry among my treasured friends  
 But who do you know that stops that long  
 To help another carry on,  
 The world moves fast and would rather  
 Pass you by,

Than to stop and see what makes you cry  
It's painful and sad and sometimes I cry  
And no one cares about why?.

## Difference Matters



### John Prajwal M

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“You have no right to decide my future”, shouted the 17-Year-old kid at his mother. She pleaded him not to leave and said “your father is dead now and you are the one who needs to lead our family”, the angry young boy says that he never liked that moody life and he wanted to discover his own self. He left his everything there. Stephen in his 26, was a successful business man and was dealing with an issue that brought his entire business into trouble after his business partner had cheated. This is the time when he gets to meet a good friend, a muslim woman named Razma. She helped him come out of all his troubles. Meanwhile his relationship with Razma went on to be strong and they decide to get married. Gradually there started complication in their relationship blaming there was no time for each other, jealousy, a feeling of being insecure. They broke and Razma got married. Stephen couldn't handle all this tension and for the first time in 11 years he felt to go back to his home. Stephen felt that he could live peacefully in his home. People around him scolded that he left his poor family selfishly and now he

goes back after all this. Stephen had not revealed any truth about him to anybody. He again left everything there and turned back to his home. The Throne was still waiting for him to come back. His family/people were very happy to have him back and they declared him as their King with his true name “Varun Simha” and married him to princess “Bhagavathi”. He accepted her happily and moved on with his life. He was bored of all the cultures and left the kingdom at the age of 17. He saw the modern world, he saw the tension, and all that was again enough for him and felt it would be peaceful to go back. But again he faced many problems as a King and again felt he could live as a servant peacefully than being a king. He learnt that **Difference** is what matters. He neither wanted to be most successful person nor a King nor a servant. All he wanted is difference from his routine life. Poor wants to become rich, rich wants to become poor to get peace, Children want to grow, adults want their childhood back, students hate to go to college, same students miss the college after leaving. Ultimately everything just says that **Difference is what matters.**

This is what the world runs on in every single aspect.

## Difference Matters

## Be proud of who you are



### Manvendra Bansal

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Dept. : Computer Science & Engineering



I come with no wrapping.....  
 I am who I am, from my head to my toes.  
 I tend to get loud when speaking my mind.  
 Even little crazy some of the time  
 I am not a size five and don't care to be  
 You can be you and I can be me  
 I try to stay strong when pain knocks me down.  
 And the times that I cry that are when no one's around  
 To error is human or so that's what they say  
 Well, tell me who's perfect anyway

## Elevated Corridor Project In Bangalore and Its Impacts



### Mukund Pandurang Nayak

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Anyone who lives in Bangalore is keenly aware of the high levels of traffic congestion here. People are forced to spend hours stuck in traffic jams. According to a study in 2017 Bangalore had the slowest moving traffic in India. One solution to this is 'grade separated' junctions where bridges and underpasses are built to enable vehicles to keep moving in their desired directions, without having to cross oncoming project. Taken a step further the essence of the 'elevated corridors' project proposed by the government.

The elevated corridor Project covers a distance of 102 kms. It is estimated to cost between 25000 crores to 26000 crores including land acquisition cost and is expected to be in place by 2025-2026. The Public Works Department will implement it through the Karnataka Road Development Corporation Limited. The work is expected to begin by this year.

### Impacts :

Environmental impact assessment report says project needs 56.89 hectares of land. The proposed elevated corridor, which will criss cross the city through 102km, will affect as many as 1131 properties and require a total of 56.89 hectares of land. The report states that properties include 209 residential, 577 commercial and 32 religious structures. The KRDCL will be spending 11555 crore to acquire the properties. As per the reports 56.89 ha of land needed for the project, 17.76 ha is owned by private parties. Apart from these 33.52 ha of land owned by the state government, 2.54 ha of defense land, and 3.07 ha of land owned by the Union Government. For the implementation of this project approximately 3700 trees should be removed, which includes more than 120 trees in Cubbon park.

## Finding The Purpose of Education



### Muskan Gupta

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I moved from high school to college without much thought. In order to ensure a place at university, I completed every task that was placed in front of me by school counsellors.

**ALL OF THIS WAS COMPLETED WITHOUT ANY THOUGHT.**

I had seen many of my friends take similar paths. Many I saw expressed their belief that entering into a high performing university would be the solution to everything. It would be the solution to problems they hadn't experienced or considered. I found this strange, and criticized them for their competitive nature, but moved on, still without thought, on my similar path. Other friends went through school with little interest, but I noticed that they moved with great thought.

They would tell me that they saw no point in going to college. Their parents were working class, and they too would be working class. Why delay the unavoidable? They were not born to be doctors or lawyers. I would often voice my concern for their future, but deeply, I understood their view. I found a bizarre situation when thinking of this group of friends; they were regularly critiqued by teachers and faculty and labelled the "underperforming;"

My thoughtful friends were kept as a kernel in my brain. What may be labelled as cynicism would interrogate every thoughtless action I took. It questioned every step that was taken only for my own gain. It forced me, to consider what I was doing. I tried ignoring this nagging part of my brain until I finally came to university. I arrived at the University with a nice scholarship and experience in academics. Registering for a first-year student seminar, as is required, I chose that which sounded most interesting: a course on the decline of civilizations. I thought of lectures on the decline of Rome and Edward Gibbon, or the end of the modern era in 1945

or even a look into how our own society will fall. However, when I entered class on the first day, I was met with surprise by the professor's introduction.

**IN THIS FIRST CLASS, OUR FIRST ASSIGNMENT WAS GIVEN TO US: WE WERE TO JUSTIFY OUR DECISION TO ATTEND UNIVERSITY.**

When introduced to this topic, I found myself at a loss for any way to respond. How was I to consider something that I had done without thought? I silently listened to students' talk of their experiences. Now, only one student's response remains in my mind. I recall someone saying that he had given himself two choices: either earning his MBA or taking a year-long break to ski. Clearly he chose the former, but, though I made the same decision I hadn't even given myself two options.

It was university or my life was over. I moved through the first few weeks of this course with some anxiety. Finding an answer to this question began to overwhelm me. I could either apply thought to creating a response for our first assignment or do as had always done. Of course, humans are creatures of habit. This is to say, I chose not to apply much thought to the essay.

I think, now, of what I could have written. In hindsight, I could have said that I was simply appeasing the ambitions of my father, who was desperate for me not to follow the traditional family line as a tool salesman. I could have spoken of the pressure that is placed on high school students, who are often told that the only way to make anything of oneself in the world is to attend a four-year college and find some lucrative career.

Maybe I would have written about all the paths that are laid not by an individual's ambitions but the ambitions that they have been given. Sometimes I think I may have

even said that I chose to attend university because I wasn't thinking: at least it would have been honest.

Instead, I chose to write that university is an opportunity to find oneself. It's a chance to discover what our ambitions are. It's for mind expansion. I wrote this first assignment as I had written almost everything in my school life, without thinking and pandering to what I assumed the reader would like to hear. But what does this produce? My essay was marked eight out of ten. Eighty percent. A "B minus:" A deservedly unremarkable score for an essay produced without thought.

I can't say that an average grade affected me very much, but I was affected by an odd feeling of dissatisfaction. I couldn't say where this discontent was coming from at the time and I was certainly deficient in any ability for self-analysis. Through the rest of my first semester I tried to force the realization that college was not for me. I thought often about quitting.

My solution came suddenly during a conversation with my academic advisor. He asked me, "What interests you?" It seems a likely question, but I had never considered it before. I had been overwhelmed by what I assumed were the ambitions of others when I should have placed my interests first. This question immediately changed my attitude by forcing me to consider what it was that I wanted to study. The ability to think critically came from studying subjects that made me want to think. When I stopped imposing outside influences on myself, I broke my automatization and found a place at university for myself.

College has never been easy, but when you are learning what you want to learn, it is never work. It is our responsibility as students to find what interests us. When we do, the rewards come naturally.

## Music



### Nadeem Ahmed S

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I hear the music

Music is love

Music is life

Music can tell a story

Music cheers

But also brings memories

What's so special about music?

When I listen to music it takes me

To another world

Music is my passion

Music soothes the soul

Music can take away the pain.....

Our life is music

Music inspires me

Music flows through me

Do you hear it?

Come dance with me to night

## ICC Cricket World Cup England and Wales 2019 for the Grab



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Cricket world cup round the corner by 14<sup>th</sup> July 2019 new champion of cricket will hold the world cup. Analyzing the strength, weakness, opportunity and threats of each participating 10 team's author selected the four teams to enter the semifinals. These four teams are analyzed to predict the summit clash.

In less than two months, one-day cricket's 10 best teams will convene in England and duke it out for the sport's greatest trophy-the world cup. The hosts England head into it as marginal favorites over a remarkably consistent Indian outfit. With time quickly running out for each side to nail out a game plan, it is time to analyze the top four teams which are having high chance to make it to the semifinals.

### ENGLAND

Having won 10 of its past 12 bilateral series, England is the world's best one-day international team and has the ICC ranking of number one to prove it. Since the last world cup they have crossed 300 runs, 34 times which is 14 times more than the second best team India. Their strength is that they have explosive deep order batsmen's like Jos Buttler, Jonny Bairstrow and Ben Stokes

who can hit from the first ball. They also have a balanced bowling attack. Their weakness is that during hot conditions the pitch gets dried, reverse swing and spin becomes biggest factors, English batsmen's will struggle. Their opportunity is that they are playing on their home ground. Their threat is that they have not won the world cup so far.

### INDIA

Their strength is that they have strong batting and bowling line up. With batsmen's like Virat Kohli, Rohit Sharma they can score runs quickly. They also have MS Dhoni who has vast experience and has the ability to play under pressure and win matches. India's fielding is also quite good with R.Jadeja contributing to lot of run outs. They have bowlers like Bumrah, Shami, Bhuvaneshwar kumar and have spinners like K. Yadav and R.Ashwin who are handy in the middle over's. Hardik Pandya will be carrying the load of fifth bowler and India's attack will cause a plenty of trouble. India's weakness is they have inconsistent middle order batting and are over dependant on Virat Kohli. Their opportunity is that they have been consistent. Their threat is that Indian batsmen's are good against spin and the seaming wicket could cause bit of problems.

### SOUTH AFRICA

They have four series win in a row. Their strength is they have conceded less than 250 runs in 13 of their last 17 matches. With Dale Steyn back in the picture alongside Kaigaso Rabada, Lungi Ngidi, leg spinner Imran Tahir South Africa has the best bowling attack under the English conditions. Their weakness is that AB De Villiers has retired and Hashim Amla is out of form, their batting mainly depends on Faf Du Plesis and Quinton De Cock. Their opportunity is that they are playing under English conditions. Their threat is that they buckle under high pressure games.



## AUSTRALIA

Their strength is that their bowling attack features Mitchell Starc, Pat Cummins and spinner Adam Zampa. The return of Steve Smith and David Warner and presence of Glenn Maxwell boosts their batting line up. They are proven batsmen's who can take the game away quickly from the opposition. Although they have struggled in the past, their recent ODI series victory against India says that they can't be ruled out. Their weakness is that they had poor last two years since the suspension of David Warner and Steve Smith. Their opportunity is that they have won five world cups. Their threat is they are bit inconsistent in recent times.

However New Zealand can be a surprise element. With batsmen's like Ross Taylor, Kane Williamson and Martin Guptill and bowlers like Trent Boult and Matt Henry they also have decent chance of entering the semi finals.

## CONCLUSION

Analyzing the strength, weaknesses opportunity and threat of probable top 4 teams, keeping the pitch condition and the team's ability it appears to be either India or England will be the new champion of ICC cricket world cup England and Wales 2019.

## Mother



### Nishit Khaitan

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Dept. : Computer Science & Engineering

Her eyes wept,

whenever he goes

Her Heart melts,

whenever he hugs

She scolded,

in his every wrong doing

She teaches,

his every lesson of life

She laughs,

in his every stupid jokes

She appreciates,

in his every small achievements

She gave,

him the precious gift of life

For she was his mother....

And she loved him eternally....

## Natural Calamities in India



### Pavan D.G

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Natural calamities are occurrences that take place as natural disturbances, resulting in widespread destruction of lives and properties. Thousands of people in India are killed every year due to natural calamities such as floods, earthquakes, heavy rains, cloud bursts, lightning and other natural disasters. Later, thousands of people die from diseases caused by natural disasters. Despite widespread destruction caused by these occurrences, the country does not have an effective disaster management system in place. Earthquakes, landslides, droughts, floods, tsunamis and cyclones are major examples of natural calamities.

### Types of Disasters and their spread in India

Earthquake is caused by the increase in internal pressure between the tectonic plates – huge rock pieces within the earth's crust – which causes them to break apart. In addition to simple and mild earthquakes, severe earthquakes have occurred in different parts of the country such as Uttarkashi (1991) and Latur (1993). Draught is caused by the fall of lower volumes of rain. North-western part of the country is highly drought-prone region. Floods come due to more rain in a short time, low pressure areas and low exit-flow. India is the second highly affected country where floods are common in the rainy season. Typhoons occur due to earthquake (tsunami) in the oceans. Cyclones come due to temperature and pressure variations in the ocean. In the Bay of Bengal and the Arabian Sea, 5 to 6 tropical cyclones take place every year.

### Growing Awareness

There is increasing consciousness across the world about the environment in the wake of natural calamities, but it is not making any difference on the actual ground. Only lip service is being paid to environmental protection. There is a mounting concern on environmental imbalance in India too and its

impact on the individual, society and the life of the nation. But the efforts to reduce the environmental imbalance are proving to be inadequate.

Over-exploitation of natural resources has led to environmental imbalance which also contributes to increasing instance of natural disasters. There is undue exploitation of water resources due to increasing urbanization and industrialization. It has led to contamination of water and decrease in ground water levels. In the wake of increasing concretisation, we do not have adequate groundwater recharge. In cities, there is massive accumulation of wastes, which is being dumped on the spot without treatment. These are only few instances of man's greed that is playing havoc with nature's balance. We need to embrace development, which is in harmony with Nature. Otherwise, by ignoring Nature, we will only be scripting our own destruction.

## A Man in A Jar of Wonders



### Manish V

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Semester : 2<sup>nd</sup>

Dept. : Computer Science & Engineering

I once knew a man who lived in a jar.

Basically a jar of wonders.

I asked him once why he lived in a jar.

He Grimaced and said, how bizarre you are.

My jar's so cozy, warm and bright,

Even in the full moonlight.

He said, Your Question

Is Like a genie in a bottle.

They Loosen Themselves.

Actually I love to live outside,

But I have no option.

This is my life.

I Made My Jar Filled With Full of Wonders,

Only With The Help Of My Will Power.

And Now I m living happily.

That's my Life! That's my Life!

I m a Man Of Wonders, Who Live in a Jar Of Joy.

## Power of Curiosity



### Manish M

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Once upon a time in the great valleys near the Himalayas lived a young teenager. His name was Rama Shankar but people called him Ramu. It was a very peaceful, calm and nice village filled with very nice people. The main occupation for most of the families was farming. Some of them made bangles to earn their living. The children used to go to the nearby Gurukul to study and chant the shlokas. They used to play all day long

and return home only when the sun sets. Ramu, Somu and Shyam were very good friends.

One day, it so happened that Somu found something lying near the bottom of the hill. It looked something like a cylindrical structure and was rather strange to him. He then called Ramu and Shyam to inspect that rare piece of beauty that they had discovered. Suddenly, a twig from the tree fell onto it and a loud sound was produced. The three of them ran and hid behind a tree.

They didn't understand what it was. Ramu who was the bravest among the three went towards it. He took it into his hands and walked along.

A monk saw him carrying it and he knew that it was a drum. He told Ramu to hit the sides of the drum and Ramu was just astonished by the noise of it. He hit it again and just felt so nice.

He then went around the village all day long banging the drum and even during the nights. The peacefulness of the village was lost. The elderly men decided to consult the monk about this irritating noise. The monk then told them not to worry and said that he would solve the problem.

The next day, the boy passed by the monk. The monk called him and said, "Ramu, that's such a loud noise. I wonder what is inside it.". This sentence left Ramu pondering upon it. He was also curious to know the contents of the Drum.

In the evening, he took a huge rock and broke open the drum but found nothing. He then realised that he had broken his favourite instrument but nothing could be done. In this way, peace returned to the village and all lived happily ever after.

## NVIDIA's Deep Learning Super Sampling Technology – Futureproofing your Gaming PC with deep learning!



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The gaming industry has brought about a meteoric rise in the demand for faster GPU's. GPU manufacturers like AMD and NVIDIA are constantly in a race against time to develop hardware capable of supporting ever more demanding games, with stunning photorealistic imagery that a few decades ago would've been thought to be processable on nothing less than a supercomputer.

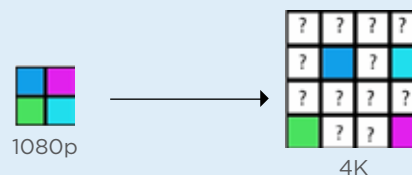
But bringing such powerful hardware into the hands of consumers comes with one major quandary – the cost factor. GPU's are incredibly expensive to manufacture, and hence not cheap to purchase. The gaming industry, constantly moving forward with leaps in technology, has a key difference from other fields – the cost of hardware, even dated ones, doesn't drop significantly with the ingress of newer technology. So, the crux here is this, why should people pour a significant amount into purchasing a GPU if it isn't a futureproof investment? NVIDIA has tried to come up a solution to help futureproof your investment into their latest line of GPU's using Deep Learning and AI.

### About DLSS

NVIDIA's Deep Learning Super Sampling aims to tackle the issue of making cheaper GPU's capable of processing 4K imagery. Processing 4K images is no easy task, since there are 4 times the number of pixels to process than in a 1080p frame, which means a 4x more load on the GPU. This results in GPU's putting out significantly lower frame rates in 4K as compared to 1080p. NVIDIA's solution to this is resolution upscaling, the process of taking a lower resolution image, say in 1080p and scale it up to 4K while preserving image quality.

### How it works

DLSS employs deep learning using a neural network to upscale images from lower resolutions to higher resolutions with an output quality comparable to the actual high-resolution image. Taking a sample of 4 pixels of a 1080p image and upscaling to 4K, we get something like this.



NVIDIA's DLSS technology trains a neural network with 1080p images as the input. The network generates an upscaled 4K image, which it now compares to the actual 4K version of that image and learns from it. Over several iterations, the network trains itself to fill in the '?' pixels, learning from it's predicted outputs by comparing it with the actual image to improve accuracy. A newly designed game is submitted to NVIDIA during development. NVIDIA produces 1080p images and 4K images of the same scenes, along with other resolutions. NVIDIA's AI compares the two and trains the neural network with a given architecture, that performs the upscaling part of the DLSS feature. The weights information



for the neural network is sent over driver updates, along with metadata that describes the network architecture. Then at runtime, the Tensor cores of the GPU simply use that network to perform the inference pass for any given frame, to produce the upscaled one. In simpler words, your GPU can now run a game at 4K like quality with little to no effect on performance as compared to 1080p. This is monumental in bringing modern photorealistic image quality to low and mid-range hardware, and is a good step forward into letting people experience high quality visuals without having to purchase a more powerful GPU. Here we see how potent the DLSS technology is in the game Battlefield 5 by EA.

We compare performance at actual 1440p resolution, and 1440p upscaled from a lower resolution by DLSS on NVIDIA's RTX line of GPU's



A difference of 42.5% in performance in terms of frames per second being processed by the GPU while having an unnoticeable difference in quality, which is astounding! Scope for further development is through super sampling instead of upscaling, where a 1080p image would be upscaled by a neural network to 8K resolution and then downscaled to 4K, giving a sharper, more

crisp output than normal upscaling. Overall, this is a good initiative in bringing top end features to budget hardware, all made possible through machine learning and AI. Being able to experience top end features on budget GPU's means we don't have to worry about our existing hardware being outdated any time soon!

## Unraveling time travel : A deeper insight



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### The reality of Time Travel

The verdict is in, and has been for a while now: time travel is indeed possible... but limited to hypothetical considerations. Remaining consistent with Einstein's theory of general relativity, there are a number of theoretical ways that travelling backwards through time might be achieved. However, none of these seem to have practical applications that would allow for a functional time machine to be built.

### Enter the paradoxes

It would not be false to say that time travel has seen plenty of contenders over the years. Namely, these come in the form of paradoxes that seem to contradict it.

### The Grandfather Paradox

It involves a contradiction being presented in the form of a person, going back in

time (either voluntarily or involuntarily), and assassinating (intentionally or unintentionally) their grandfather. Hence, if their grandfather died, then there was no one to give birth to the person's parents, and finally the person itself. So if the person was never born, then who went back in time and assassinated the grandfather? The example outlined above is the most popular iteration of the paradox, although it is applied more broadly to virtually any conceivable set of conditions where the past is altered by a prospective time traveler, and hence the future is changed. Resolutions to this however, are purely speculative, including, the traveler being unable to affect their own future, due to them going back to an alternate reality in a multiverse hence altering that reality's future rather than their own.

### **The Bootstrap Paradox**

Consider, for instance, the following scenario: let's say a professor of quantum physics gains access to a time machine, and he travels forward in time to a future date where he reads a mathematical equation from a textbook. He returns to the past, and discusses what he read with one of his students, who becomes inspired by the idea, and decides to work out the equation for himself. After a bit of labor, he manages to produce a working variation of the mathematical equation his professor described seeing, and then publishes a book about it... which becomes the very book that the professor read about during his visit to the future. The idea seems simple enough thus far... so where is the paradox? Here the problem arises: conceptually, the idea for the newly discovered equation didn't come from the professor, nor did it come from the student as each of them learned about it second hand from the other, as a result of the professor's journey into the future. Yet, it came to exist nonetheless. In other words, the equation is part of a self causal loop,

and is actively causing its own existence. However, where did the idea originate from? Who originally developed it?

### **Resolution?**

For physicists, these paradoxes are indeed disturbing, because it contradicts the orderly nature of things expressed by the known laws of thermodynamics. Herein we find a close relationship between entropy and information in our universe, and thus, the idea that information could simply appear "from nowhere" is equivalent to breaking thermodynamic laws. Since this is impossible according to what we know about the laws that govern our physical universe, we might ask, does this also disprove the notion of time travel as being viable at all? As it has already been expressed, time travel (at least backward in time) is a hypothetical possibility and could be achieved in a variety of ways that are in agreement with general relativity. However, if it were ever to become a reality, and information could indeed be passed from one state to an earlier one in history, the outcome may be indeed be very strange and unforeseen. We may find ourselves asking questions like, "did anything in the past really happen, the way it's been said to have happened?"

## **Hostel Experience**

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"A fusion of hormones, tampons, absurdity, chuckles, gossips and a lot of drama", this is how a girl defines her perfect hostel life. Seriously, moving from a luxurious and comfortable lifestyle to a chaotic and grubby one, we find ourselves measuring our

muddles in completely different parameters. Hostel life teaches you how to take care of yourself in a completely unknown space. Moreover, it brings a huge transformation in you. From being a shy, dormant girl into a confident woman who is now ready, both physically and mentally, to face the world. It teaches the basic principle of life-“Survival of the fittest”.

Nobody cares if you had an army of maids at home or who made your bed then. Never mind if you were the priority back home or if you were the special child of your parents. It's time to let go of all that and learn to adapt the real meaning of living with joy and responsibility. Being thrown in with hundreds of girls from various backgrounds, different cultures and unfamiliar dialects, it's an opportunity for you to upgrade yourself and work with eyes opened.

While you cannot be friends with everybody, you will still learn to adjust yourself with those girls whose frequency may not match yours. Your own attitude towards people changes in a discrete manner once you get to know the real personalities behind the facades. Basically, you learn to not judge a book by its cover. You learn to accept what is unacceptable, tolerate the unwanted tantrums and ignore what can't be ignored and most importantly try to take it all in your stride patiently.

This is the time when you are mature. Hostel life makes you more independent, lifts the masks and reveals the true you. With all your imperfections and your little oddities, whether it is the count of the number of times you bathe in a week or how you keep your room clean, or change your bed sheets, your friends accept you. The bond you create here is the bond of sisters which is valued for a lifetime. When you force a hundred teenage girls together in a building to spend every waking minute together, what else do

you expect? Thousands of gossips which end up with, “It's not our matter, let's not talk” with a full concern and interest in that same discussions. More alike, you can't escape it, however hard you try.

The fun begins when you share your dramas on the same table in the mess about the low-quality food and the watery milk or the evening tea you are provided with. You love your own handmade stuff in the midnight hours regardless of its taste. It's more exciting to share your accessories and clothes with hostel mates. You keep the record of every amount you lend or borrow to your friends and take it back without any hesitation. Yes, you learn to live your life in a budget.

These days are the part of those major pages in your life's book where you discover your strengths and weaknesses. You learn to share your belongings whether it's a cosmetic product or your quilt.

You create memories by living under the same roof where you share all your dark secrets involving stories of your present to ex-boyfriend, watch the movies altogether, do assignments and make projects restlessly before the deadline and more importantly learn to be more humorous.

You learn to try something new by sneaking in those bottles of drinks and make plans for the ladies night outs. You set your own limits and curfews on your lifestyle and turn into a more responsible adult every day. You actually learn how to further proceed your life by fixing your ambitions in a more authentic and professional way. It happens once a lifetime, take it as an opportunity to live your life to the fullest. Beside any degree, you get to learn the truest values of education in a college.

## Ticket for Life!!!



### Priyanka B Patil

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Life is beautiful, when we live it.

But life is phenomenal, when we live with those who cannot live without us.

When I opened my eyes for the first time with some fear,

I didn't know why I was here,

But there was someone for which I could cheer...

A lady who could understand my unspoken words,

And a man who could make wonders...

For them, I was a princess,

And for me, they were my happiness..

As a tiny-tot, there was anger, guilt, an emotion, a feeling, an enmity...

Anger when that lady said not to play in rain, because I would fall sick...

A guilt when I didn't share chocolate with my bestie..

The sweetest emotion and feelings for the two most beautiful people in this world...

An enmity when he forgot to get me a doll...

All this would end up before I would go to bed,

Because they bid me good-night with a sweet smile and kiss!

And those beautiful people are... MOM and DAD!

Days passed... Everything changed...

The same words; anger, guilt, feeling, emotion, enmity... but a different phase..

This world seemed to be cruel, to be suppressing, to be haunting...

But, there was another sweet world which was filled with love..

This love makes me breathe and stay healthy with all the nutrition of care, concern, and smiles..

The support I find in this world, is my shelter where no thunderstorm, no lightning, no earthquake can scare me..

The presence of every minutest part of this world of my life...

It is

A small world of my family in itself is the most huge one..

Parents are the creators..

And me, living every moment of it..

Every world is not this beautiful..

Every presence doesn't be a path of light to live..

Every word of support doesn't mean it..

Every moment doesn't make an urge to relive..

Every breathe doesn't make feel alive..

But, I live such life...

A life which I wish to relive again and again.



## Learn



### Vishal Chawan

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Semester : 6<sup>th</sup>

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Learn from the flower, how to smile  
 Learn from the river, how to cross miles  
 Learn from the birds, how to work hard  
 Learn from the words, how to win hearts  
 Learn from the silence, the art of benevolence  
 Learn from the nature, to respect every creature  
 Learn to forgive, for this world is give and take  
 Learn to be sorry, when you have done some mistakes  
 Learn from everyone, the things you lack  
 So that in your society you are not left back

## Hack the Hackathon



### Vikas N S

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Hey, I'm Vikas from 3<sup>rd</sup> year ISE. I have been to more than 10 hackathons hosted by companies like Amazon, Google, Visteon, etc. In this article, I would like to shed some light on what hackathons are, benefits of participating in hackathons and finally how to win hackathons.

### What is a hackathon?

Hackathon is a coding competition which involves students as well as software developers mostly for 24 to 48 hours wherein participants are required to build a prototype and present it to judges for a given problem statement. For instance "Women Safety" was the problem statement at the Hackathon by Visteon. Some hackathons are "Open Innovation" meaning there is no restriction on the domain or problem statement. Some online hackathons last for 2-3 months involving rounds such as quiz, ideation, implementation, presentation, etc. This was the structure in Amazon AWS Educate Challenge.

### Why participate in a hackathon?

**1. Lots to Learn** It helps us to learn to work under pressure in a limited time frame which is the case once we start working. In other words, it prepares us for the Corporate work culture. Also, hackathons help us to improve team management and communication skills.

**2. Platform to showcase Talent** Hackathons are really good opportunities to showcase our coding skills, as it happened in my case. I wasn't that interested in academics but was very skilled in programming. Thus, for me, hackathons were like outlets to exhibit my skills.

**3. Internships and Jobs** Some companies use hackathons for talent acquisition. I got my first internship through a hackathon by Visteon.

**4. Prizes** Most hackathons offer cash prizes for winning teams. Prizes could range from 1,000 rs up to 10,00,000 rs. 10,000rs was the prize amount in CODEFURY by Visteon while it was 1,00,000rs in Smart India Hackathon. Sometimes goodies are offered as complementary prizes.

**5. Networking** It is the best place to connect with people. It could be someone who is interested in the same domain as you are or an employee of the organizing company. Networking plays an important role in getting funds for projects and also while applying for jobs and internships.

**6. Swags** Last but not least, goodies such as T-shirts, water bottles, bags are given in most hackathons. **How to win a hackathon?**

**1. Equal importance for Planning and Presentation** Given the limited time frame most of us dive directly into the development of neglecting planning and presentation. Planning is wherein we come up with innovative ideas to stand out among the crowd while Presentation is where we make the judges understand our work. Innovative ideas can win hackathons. In CODEFURY by Visteon, “Women safety” was the problem statement and everyone started to develop the app with the given requirements. But our team came up with an Alexa skill which stole the show and helped us to win the hackathon.

**2. Holding on to nerves** During the hackathons there will be a lot of ups and downs. Sometimes everything will start crashing as it happened in CODEFURY for my team. At one point in time, we thought of walking out of the venue to avoid embarrassment. That would have been a great mistake as we went on to win that hackathon. And also if the first round doesn't go well we should not give up and continue to work. So it is very important to keep calm and to continue working and develop never give up attitude.

**3. Use trending technologies** One thing I have observed in my hackathon journey is in most cases winning teams would have incorporated technologies such as Machine Learning, Deep Learning, Blockchain, etc. This gives extra points to those teams. Additional brownie points can be obtained by incorporating products of the organizing company, for example, API's.

## Conclusion

### 1. It's more than winning the hackathons

After starting with hatrick hackathons victories I met with a disastrous 4 losses. I was disappointed and embarrassed to the core as I took these hackathons personally. So it is very important to understand that at the end of the day it's just a hackathon, win or lose we should take it easy and realize there is always another hackathon coming up.! Does Sachin always score a century? Does India always win? Just like this, we may not win all the time and it is very important to develop a competitive spirit.

### 2. Don't carry forward the Bad coding habits

Given the limited time frame during the hackathon it's fine to write least secure and least maintainable code. But these are very much discouraged in companies which I realized only after my internship at Visteon. So it's very much important to ensure we don't inculcate these habits in day to day coding.

Links of a few of my projects to get an idea about what to build during Hackathons.

1. Meri Suraksha : <https://youtu.be/4eaR58awMDg>

2. Emotion Connect : <https://youtu.be/NOukRmxe4Ac>

## Fear of the Unknown



### Sourav Banerjee

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The child lay awake in his cold, cold bed  
 Tormented by the demons in his head.  
 For the night was dark, and the beasts were loud  
 No moons, no stars, no sombre clouds  
 Only thoughts of monsters, ghosts and ghouls  
 With their horrifying statures, their terrifying growls.  
 He turned to his mother, who was by his side  
 Cold, afraid, to her he cried  
 "Mother, save me from these terrors around,  
 The howls, the demons, the eerie sounds."  
 His mother looked at him and said  
 "Sleep my child, never be afraid."  
 "For deeper than swords, fear can cut  
 And leave gaping wounds that never shut  
 These monsters you speak of, are all but a lie  
 With knowledge and bravery, these fears must die."  
 And saying this, she struck a match  
 A candle was lit, and light did hatch.  
 The child shut his eyes, shut them tight

Terrified of seeing the causes of his fright  
 But his mother coaxed him to look and see  
 "Look child, there's nothing," said she.  
 He opened his eyes just a tiny crack  
 And the unfolding sight took him aback.  
 The monsters, the beasts - they weren't there  
 Destroyed, perhaps by the candle's flare?  
 Or maybe they never did exist.  
 Just stories, tales shrouded in mist.  
 Fears were resolved, for the child now did know  
 And peacefully to sleep, did he go.  
 We fear what we do not know  
 Things that our minds do not show  
 But when light shines clear and bright  
 We see through our knowledge's light.  
 All these demons exist only in our head  
 The unknown, is what we really dread.  
 The unknown, is what we really dread.

## Computers are taking place of human brains



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Computers are good at storage and speed, but a brain is always one step ahead "It's not strange that computers have taken all the places. Ironically, we have more computers than brains these days. For decades,

computer scientists have strived to build machines that can calculate with more speed than grain and can store more data. And they are successful. We have world's fastest computer that can work 10 times more than the human brain and can store more data. But every good thing has its loopholes. World fastest computer sucks about electricity required to light up 10,000 homes whereas a normal human brain consumes electricity up to one light bulb and fits nicely inside our head.

### Computer vs Brain

As technology increases, computers are taking place of human brains. The human brain will be completely replaced by computers. Undoubtedly, computers can perform the calculation in real time, millions of numbers and their calculations can be done within seconds but brains are good at parallel processing and sorting information. They are so good at some activities that we take their strength as granted like recognize a cat, tell a joke or make a jump shot. I bet you if you give computers some pictures of the cat and then give some new pictures then it might recognize all of them (possible through machine learning) but if you give the computer some disturbed or hard to recognize the image of a cat then machine might fail. When computers reach human capacity, they will still improve. And don't forget brains have to so small that they can fit inside the skull and they do work, forget and gets tired. It is very hard to lie about the fact that what threatens will cause AI to the humans in the coming future but the idea that machines are getting smarter is important to all of us. We just need to make learn our machine just as we did to our brains and rest is magic. In many ways, machine learning is a tool that has evolved in very efficient ways, though many people might not realize it. Any interaction with speech recognition robots as Siri, google assistant, Amazon is influenced

by machines that make themselves better. Machine learning help today to retrieve data from images, weather forecast, learning from the mistake of machines and then make them learn and improve, finding new correlations and risk analysis. This constant change and improvement in machines are, no doubt, wonderful. We all as individuals have to see what we are not seeing. The basic idea behind this article was not to compare the computers and human brains but to realize the importance. Technology lies behind global development and alters how people live. It affects every job and every human activity. It makes possible almost every activity or calculation possible that were unimaginable a few decades ago. But along this way, it upsets social norms, industries and many more. A brain does not work more efficiently than computers and computers don't work smarter than brains. They are both good at their places but what we forget that in today's time is to use our brain whilst we are using machines. Let us not forget, a brain is a key to invent computers. Now we all can understand who is better.

**Black**



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You don't comprehend me.

I am the merchant of fear



When the sheer horror comes through, you  
know I am here.

I am,

the companion of a goth, the identity of a  
raven

My existence is the light's evasion.

Beware! I can steal your shadow.

As the night approaches,

a new meaning to darkness, I bestow.

My home is hell and the abyss

When the time comes, I dominate an eclipse.

With the dirt, I am kindred

Associated with the hard work

From a laborer's skin, I shed.

Powerful as Panther,

Evil as an oleander.

Skilful at hiding,

Master at misguiding.

I am grim,

I am a bad omen.

I am indicative of all bad deeds unspoken.

You don't comprehend me.

Symbolized in shame,

Yet I am the definition of elegance.

I am bold, I lack innocence.

Befitting the fantasies, I am the alluring.

The everlasting.

I am the thrill of the unknown,

Death brings you and me together to mourn.

Before your end, I will be the last thing you  
see.

Perhaps, you will never fathom what I was and  
I what I ever will be.

## The Art of Finding Inner Wealth and Happiness



### Mohan Chandan RK

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Healthy mind resides in healthy body. In the world of finding the throne one has forgotten to look there is a precious wealth inside us. Wealth in us is not only money but discipline, happiness, truthfulness, humble, politeness and kindness. Honestly question yourself are you happy? It's been how long you haven't spoken yourself.

Your hands, body, the legs which carry your Organs the appendages, the eyes which responds to the stimuli, the unstoppable working nose, the savory tongue, the craving stomach....have you spoken to all of these or a thought for it ? Don't neglect. Take care of yourself. If the tooth has started decaying don't wait until the pain, the foreign body or the smell to intimate you. The blocked nose should not find for inhaler. When there is indigestion tablet should not be the remedy.

If your spending more time in your office/ Organization don't portray it as hard work maybe you're not efficient enough to do. Taking help from your friend and colleague in work place. Same applies even in home, someone washing your untidy clothes, serving food, the tie- uniform it's all yours. Don't have a perception that everything is

around your and happens for you. But that is not correct.

Today people go to spa to get their nails cut, to shave, getting hair wash, even grooming! Is it really necessary for someone to lift you in just small things? Brush all thirty two teeth morning and before sleep. Sleep on mat without pillow when you get back pain because moving out of comfort zone relives your neural system activated this is what our ancestors followed. All these are self remedies. On holidays apply Organic oil to your hair and take a hot water bath. The entire thought of saying all these simple things is because you have to love yourself.

Usually drug addicts and alcoholics are in there own zone and they don't have self criticism they live only for themselves and not to others even to their family, they talk about death, suicide attempts, unnecessary phases, isn't it taking these people in wrong direction. Have you thought of solving these issues. How much you know about your locality, who is your cooperator, MLA, MP, most important who is your neighbor? Are you aware of it? Complete lack of enthusiasm.

Do you love the stray dog in your street, Have you kept water for birds on rooftops, have you seen sunrise and sunset, ever heard a happy sparrow chirping early morning, do you like the smell of mud when it rains, have you advised a failed person....Social Responsibilities.

Due to stressful environment we tend to forget our beloved ones birthday, anniversary, mobile number, parents foot wear size, Spectacles power, medicine prescription etc. In our own system there is always variation in blood pressure, insulin level, fatigue etc. Relationship between parents and children are reducing, since in current world everything is online over internet! Have you gone out for local street market to buy vegetables, fruits and grocery

with your son or daughter nor yourself? Are you losing all these in your life or yet to lose? It's very bad prevent it.

There is something called self satisfaction and happiness, can only be obtained by small corrections in life. Being an atheist or a believer of god it's left to you, but there is always a god inside you. I believe god is a positive energy may be Sun, moon, ions, molecules, light rays, physical and mental strength etc. Something overwhelm in us is god according to me. Trust yourself! We search for peace of mind but it exists within us, when we sleep without stress there is peace. Let our mind relax and sleep with healthy thoughts and peace.

And Yes! peace not only comes from mental sleep but also from external things like hygienic pillow & cover, bedspread, night wear everything should be clean around us. Cell phone, Air conditioner, and radiating devices should be kept far from the place we sleep. Go with good book, glass of water, a torch light for emergency during power cut. Most important Say No to Medicines and drugs that can make you sleep.

Michel Jackson died because of excess use of medicines and drugs. The power of medicine is there in our Indian fruits and vegetables and consumption of these depends on Individual health and diet policy. Once in fifteen or monthly basis take hot water oil bath. All these are not luxurious; it's the way we treat our self, praising ours self for good work is very important don't wait for appraisal.

We have brain use to gain knowledge. We have a tongue give it a taste.... Most Important give rest. Even a machine need rest. Don't be tensed, tension is not the solution for the cause. Live for today, think for tomorrow and pray for others.

## How Architecture Revived A Dying City – The Bilbao Effect



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A dying city plagued by terrorism and failing industry. One building built on the grounds of impossible ambition and a spark of hope. Finally, an outcome that grew larger than life. This is the astonishing story of Bilbao, Spain and how one ambitious building turned around an entire city's economy.

For years, Bilbao was scarred by the Basque separatist terrorism. Trade and industries were failing or were moving away. The now world-famous museum Guggenheim was their solution to act as “a driver of economic renewal” and “agent of economic development”. It was meant to be a tool of mass attraction and a catalyst to their failing industries. Ambitious as it was, architect Frank Gehry made this dream into reality.



The Guggenheim Museum Bilbao, on the banks of river Nervion is a museum of modern and contemporary art designed by Canadian-American architect Frank Gehry

So, what exactly was the agenda? How does one revive a city with just a building? As herculean a task as it sounds, the plan of action was fairly simple in principle—turn Bilbao from the industrial port hub it was, to a tourism led service economy, the Guggenheim being its instigator.

Bilbao was an industrial port city that centred on shipping, manufacturing and commercial trade. But, owing to deindustrialization, Bilbao started losing industry. At this point was when the city's council made an executive decision to transform the city into a tourist magnet. And the Guggenheim did just that. Once opened, the city's economy exploded. It became a mandatory item on everyone's bucket-list of places to visit. Visitors spent large amounts of money on accommodation, shopping, transportation, eating, drinking and other commercial activities. This opened up new avenues for business and created jobs. The footfall was so unbelievably enormous that it could revive and restart the economy of an entire city.

Tourists were pouring in to witness the amazing spectacle the Guggenheim is. For, Gehry had revolutionised the way buildings could be designed. His new take on modernism and insistence on breaking its fetters of stylistic tropes is what caught the attention of the masses. Steering away from any sort of accurate categorisation, Gehry's audacious design was refreshingly new and effortlessly captivated anyone who set their eyes on it.

Sitting on the banks of the Nervion river, this mega project is described as “a fantastic dream ship of undulating form in a cloak of titanium, its brilliantly reflective panel also reminiscent of fish scales.” Enormous sheets of titanium along with stone and glass seamlessly blend into the background context which further solidifies its concept and makes it a marvel. Architecture

that blends in with its context without ostentatiously standing out, yet capturing everyone's attention is truly appreciable and a goal most architects aim to achieve.

Gehry's radical ideas of deconstructivism shown in this building drew the attention of thousands. It was this bold step that propelled Gehry to worldwide fame and recognition along with the Guggenheim becoming a symbol of modern architecture etched in our minds forever. The success and impact of the museum was so overwhelmingly huge that the term "the Bilbao effect" was coined.

The Bilbao effect, also known as the Guggenheim effect simply put, is "a phenomenon whereby cultural investment plus showy architecture propels the economic upliftment of cities, down on their luck." But, Gehry says Guggenheim's popularity, though intended at being impactful enough to turn around an economy, took him by surprise. Having an annual footfall of an astounding one million visitors, Gehry's design, to this day, is passionately discussed by the public. This insane idea of transformative effects of art was reinforced by the massive success of Guggenheim. For, architecture is not just stone and concrete buildings. Architecture is a feeling that a space exudes; its aura precedes its aesthetic beauty. It is the happy marriage of functionality and aesthetics. Architecture can also be interpreted in the way it visually, culturally, socially and economically affects its environs. It is the owner's signature as well as a mark of respect. When a building turns into the face of the city, impacting its economic growth due to its popularity, is where the unimaginable magnitude of architectural power comes in. Guggenheim, Bilbao harnesses all these qualities, leading to the Bilbao effect. The Bilbao effect proves that architecture could be ambitious, aesthetic and popular all at once. The Guggenheim's eye-catching demeanour and annual footfall are testimony to this.



**Night view of the Guggenheim Museum  
Bilbao, Spain**

Though past examples such as Sydney with its Opera House and Paris with the Pompidou Centre do exist, what set Bilbao apart is the economic gap between its before and after. As the craze to recreate the Bilbao effect still continues, this building remains as a pioneer of an ambitious project, massive economic growth, and art as a social and economic growth catalyst. The Guggenheim, Bilbao will forever be remembered as an icon in architecture.

## Deep Medicine



### **Dr. S. Sethu Selvi**

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### **How Artificial Intelligence (AI) can make healthcare human again?**

Medicine has become inhuman, to disastrous effect. The doctor patient relationship – the heart of medicine is broken. Doctors are too distracted and overwhelmed to truly connect with their patients, but medical errors and misdiagnoses are increasing. In Deep Medicine, leading physician Eric Topol reveals how artificial intelligence can help. AI



is hyped as the fourth industrial revolution, but others decrying it as the greatest threat to modern society and many call for AI as less artificial and more intelligent. AI has the potential to transform everything doctors do, from note taking and medical scans to diagnosis and treatment, greatly cutting down the cost of medicine and reducing human mortality. By freeing physicians from the tasks that interfere with human connection, AI will create space for the real healing that takes place between a doctor who can listen and a patient who needs to be heard. Innovative, provocative, and hopeful, Deep Medicine shows us how the awesome power of AI can make medicine better, for all the humans involved.

Deep Medicine summarizes hype and threat, and then takes us to a place where no one else has gone, a future in which AI helps to re-establish empathy and trust between doctors and patients. The task is formidable because AI, which has transformed how we seek information, how we shop, how we connect to each other, has had comparatively little impact on health care. The effects thus far — electronic medical records, data collection for billing and the development of high-tech procedures such as robotic surgery — seem to have made health care decidedly less human. Can AI reverse this trend and heal the doctor – patient relationship? Or will it make worse the problems of technology, but with devices that replace more humans and destroy privacy?

Deep Medicine will facilitate the concept “Patient Will See You Now”. It also looks at how the use of AI is changing medicine in a challenging and enlightening treatise. Central to this discussion is the conviction that the practice of medicine is in need of a paradigm shift toward doctors being better equipped to understand and empathize with their patients. AI underscores its effectiveness in pattern reading, the major

task of pathologists, radiologists, and dermatologists, as well as less developed uses in mental health and surgical fields. AI also has potential effects on health provider systems, apps that monitor patient biometrics, and collection of health data. This also provides with an impassioned plea for doctors to use the time freed up by AI advances to get to know their patients better as people, and not just medical problems or questions. This is the ultimate future of medicine.

Deep Medicine builds on what algorithms do best: pattern recognition. It takes advantage of how AI is being applied in radiology to read X-ray films, in pathology to identify tumour cells and in dermatology to diagnose skin lesions. It can also provide a similar approach in ophthalmology, where algorithms can detect diabetic retinopathy, and in cardiology, where AI is beginning to uncover cardiac arrhythmias such as atrial fibrillation by tracking data from wrist-based sensors. More unusual is AI’s deployment in mental health care, through robots that can read mood from shifts in voice and facial expressions. These inevitable algorithms can integrate data from online behaviour (such as patterns of typing or scrolling), sensors, the medical literature and clinical records. AI will inherit the tasks best done by machines, leaving doctors’ time to do what they do best — providing compassion and being present for patients.

The first act in the play is by technology giants like Google, Baidu, Alibaba, Apple, Amazon, IBM and Microsoft, along with hundreds of health-tech start-ups in the United States and Europe and more than 130 medical AI companies in China. The evident problem is that the health care has become a massively expensive enterprise that no longer serves the needs of doctors and patients. In wealthy countries, the costs continue to grow without commensurate improvements in outcomes. In poorer regions, the lack of

health-care workers becomes unsustainable as the population and its needs expand. The setting for this play is through a sea of data from online behavior, sensors, smartphones, genome scans, imaging, lab tests and clinical records. Deep Medicine is about technology and health care, but it evolves surprisingly towards the values of the past while imagining the tools of the future. Describing how medicine has changed since training four decades ago, one feels that technology has not improved things. By bringing together the deep phenotyping of digitized medicine, the engagement of the empowered patient and the analytical power of AI improve the doctor-patient relationship. This is the 'Empathy robot' Reeti, made in France for use in health care.



**'Empathy robot' Reeti, made in France for use in health care**

Digital medicine, defined as the use of digital tools to upgrade the practice of medicine to one that is high definition and individualized, holds promise in revolutionizing healthcare and well-being. This new digital age of medicine has the potential to democratize access to care and empower patients to engage with their health in a truly preventive way. It also holds the promise of helping clinicians to navigate the increasing volume and complexity of patients' data in a cost-efficient and time-saving manner. AI and deep learning, is among the leading technological tools beginning to be used in the interpretation of medical images and electronic health records. These tools are speeding up diagnoses, guiding therapeutic choices and optimizing patient experience. The US Food and Drug Administration

(FDA) have granted approval to an AI based device to detect certain diabetes-related eye problems. It was the agency's first market approval of a medical device that performs a screening test and provides a referral to a specialist without the need for a clinician to interpret the image or results. It also uses cost-effective strategies and big data to accelerate the regulatory path of clinical trials, and medical product development. The Pre-Certification Pilot Program, one of the outcomes of this FDA initiative, enabled Apple to quickly receive clearance for use of its electrocardiography app (a feature of the new Apple watch), which provides over-the-counter information for identification of certain cardiac arrhythmias in users of the high-tech watch.

Although the benefits of this digital revolution are easy to point out – such as improvements in accuracy, productivity, workflows and access – the magnitude of the challenges it creates is harder to predict. Over-the-counter use of medical devices to detect conditions that normally would require assessment by a physician could lead to over diagnosis in the healthy population, increasing the burden handled by health care systems instead of relieving it. Other challenges in digital medicine include ensuring the privacy of health data and establishing proper consent and patient governance in data collection, and developing regulation to protect individuals against the use of personal data for discrimination. Finally, it is worth exploring how the human aspect of medicine – the bond between patient and physician may be affected by the increasing use of technology in medical practice.

President Trump signed an executive order making the development and regulation of AI a federal priority. Doctors are using AI to spot potentially lethal lesions on mammograms. Scientists are also developing AI systems that can diagnose common childhood

conditions, predict whether a person will develop Alzheimer's disease and monitor people with conditions like multiple sclerosis and Parkinson's disease. AliveCor, with their Mayo Clinic collaboration, developed deep learning algorithms to determine a person's blood potassium levels via a smart watch ECG signal. Google AI and its Deep Mind division has worked on accurately triaging urgent eye conditions, predicting outcomes in the hospital setting, and prospective study of pathology slides in cancer. There are emerging data to support personalized nutrition, such as avoiding glucose spikes after eating, which are highly individualized, much more common than anticipated, and related to the specific foods we take in and our gut microbiomes. AI can also help the precision of delicate microsurgery, as seen with the retina. There will be better robots for surgery than we have now. But that will not obviate the need for human surgeons as it will just augment their performance. Nobody will like the surgery to be done by a robot.

AI can also detect depression by scanning a person's Instagram photos. For the first time, objective metrics for state of mind and mood like tone of speech, breathing pattern, smartphone keystrokes and communication, and physical activity is obtained in real time. It is well known that people would rather share their innermost secrets with an avatar compared with a human being. So, the landscape is ripe for AI to help alleviate the profound shortage of health professionals compared with the enormous burden of depression and other mental health conditions.

AI has the potential to markedly improve productivity, efficiency, work flow, accuracy and speed, both for doctors and for patients, giving more charge and control to consumers through algorithmic support of their data. Some key areas include pattern recognition to promote the rapid and accurate reading of

medical scans, slides, skin lesions, pickup of small polyps during colonoscopy. Another is keyboard liberation, or using natural language processing of speech to synthesize notes and eliminate the ultimate source of distraction and dislike in medical encounters. Some of the liabilities include breaches of privacy and security, hacking, the lack of explainability of most AI algorithms, the potential to worsen inequities, the embedded bias and ethical quandaries. Finally "One thing for sure: 20 years from now (and hopefully sooner) we won't be saying "deep learning in medicine", "precision medicine", "clinical decision support", "personalized medicine", "digital medicine" and "genomic medicine" - it'll just be "medicine" - Dr. Eric Topol (June 27, 2015) "I predict that within 10 years no medical imaging study will be reviewed by a radiologist until it has been pre-analyzed by a machine" RSNA President Dr. Nick Bryan (May 1, 2016)

## Glowworm Swarm Optimization



### Dr. J Sangeetha

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The Glowworm Swarm Optimization (GSO) algorithm was introduced and developed by Krishnanand and Ghose in the year 2005. The GSO algorithm is most widely used nature inspired techniques to capture multiple peaks. The phenomenon of emission of light from living organisms is called as bioluminescence. This algorithm is based on the bioluminescence capability of

glowworms and the ability to change their brightness level during the attraction of prey or to communicate with other glowworms. Glowworms emit light using a chemical substance called Luciferin. From the GSO algorithm, we understood that the agents (i.e. glowworms) glow at intensities proportional to the function value being optimized. The glowworm with lesser intensity is assumed to move towards the brighter ones. The GSO algorithm differs with other nature inspired techniques in that it integrates a dynamic decision range by which glowworm has the ability to ignore the glowworms which are out of its vicinity range. The GSO algorithm is mainly used for simultaneously capturing the multiple local optima for a given multimodal function. The GSO algorithm is more efficient in finding the multiple local maxima or minima when compared to other nature inspired techniques. The GSO algorithm is divided into two phases - a) the update and selection phase, and b) the movement phase.

a) Update and Selection phase: The luciferin content of the glowworm is selected to reflect the function value of each agent at its current position. At each iteration, the leader of the agents having the least function value (i.e. higher luminescence) is selected using,

$$l_{i+1} = \arg \min_i f(l_i) \quad 1 \leq i \leq I_{\max}$$

Where  $l_i$  is the best fitness value of the solution  $i$  which is proportional to the luciferin quantity in the position  $i$ ,  $n$  is the number of agents and  $I_{\max}$  is the maximum number of iterations.

b) Movement phase : Each agent decides to move towards the leader that has a luciferin value more than its own. From the selected leader, calculate the average distance to all other agents. All the other agents move towards the leader agent with a step size 's' and the updated position is obtained using,

$$x_i(t+1) = x_i(t) + s * \left( \frac{(x_j(t) - x_i(t))}{\|x_j(t) - x_i(t)\|} \right)$$

where,  $x_i(t)$  is the location of the  $i$ th agent,  $j$  is the leader agent and  $s$  is the step size, which indicates the distance moved by the agent. The quantity  $(x_j(t) - x_i(t))$  gives the direction of movement.  $\|.\|$  is the Euclidean norm operator, thus  $(x_j(t) - x_i(t))$  is the direction of movement.

## Golden Shower Tree



### Sini Anna Alex

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Yellow bliss in the greens

Will peep out when summer begins

Shed its leaves in autumn

And turns into golden showers

Shines like a million sun

Home for butterflies and bees

Its leaves shine like glittering gold

Really missing the golden beauty

Eagerly waiting till summer rolls around again

Blossoms in its full glory

The golden shower tree



## KANNADA ARTICLE AND POEMS

ಕಾಲೇಜಿನ ಮೊದಲ ದಿನದ ನನ್ನ ಅನುಭವ



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ನಾನು ಕಾಲೇಜಿನ ಹೊರಾಂಗಣವನ್ನು ದಾಟಿ ಒಳಾಂಗಣಕ್ಕೆ ಕಾಲಿಟ್ಟೆ ಎಲ್ಲಿ ನಮ್ಮ ತರಗತಿಗಳಿವೆಯೋ ಎಲ್ಲಿ ಹೆಣ್ಣು ಮಕ್ಕಳ ಕೂಡುತ್ತಾರೆಯೋ ಅಲ್ಲಿ ಹೋಗಬೇಕೆಂದು ಸುತ್ತಲೂ ಒಮ್ಮೆ ಕಣ್ಣು ಹಾಯಿಸುತ್ತಾ ಅಲ್ಲಿಯೇ ನಿಂತೆ ಹುಡುಗ ಹುಡುಗಿಯರು ಗುಂಪು ಗುಂಪಾಗಿ ಬರುತ್ತಿರುವುದನ್ನು ಕಂಡು ನನಗೆ ದಿಗಿಲಾಯಿತು. ಅವರ ಚಿತ್ರ ವಿಚಿತ್ರವಾದ ಪೋಕರಗಳನ್ನು ಕಂಡು ಕಣ್ಣಿಗೆ ಚಕ್ರ ಬಂದಂತಾಯಿತು ಹುಡುಗಿಯರು ಅರೆ ತೋಳಿನ ಮೈಗೆ ಅಂಟಿಕೊಂಡಿರುವ ಚಿಕ್ಕದಾದ ಮೇಲಂಗಿ ಹಾಕೊಂಡರೆ ಕೆಳಗೆ ಬಿಗಿಯಾದ ಪ್ಯಾಂಟ್ ಹಾಕೊಂಡಿದ್ದನ್ನು ನೋಡಿ ನನಗೆ ವಿಚಿತ್ರವೆನಿಸಿತು. ಹಲವರ ಪ್ಯಾಂಟ್‌ಗಳು ಅಲ್ಲಲ್ಲಿ ಹರಿದು ಹೋಗಿದ್ದನ್ನು ಕಂಡು ಇದ್ದಾಕೆ ಹರಿದು ಹೋಗಿರುವುದನ್ನು ಹಾಕೊಂಡಿರಬಹುದು ಇದನ್ನೇನಾದರೂ ನಮ್ಮೆಷ್ಟಿ ನೋಡಿದರೆ ಅಷ್ಟೆ ಎಂದು ಕೊಳ್ಳುತ್ತಿರುವಾಗ ನನ್ನನ್ನು ದಬ್ಬಿಕೊಂಡೇ ಹೊರಟಿದ್ದರು ಕೆಲವರು ನನ್ನ ನಿಂತ ಭಂಗಿ ನನ್ನ ಬಟ್ಟೆ ಬ್ಯಾಗ್ ನೋಡಿ ನಗುತ್ತಾ ಕೀಟಲೆ ಮಾಡುತ್ತಾ ಹೋಗುತ್ತಿದ್ದರು. ಅಲ್ಲಿಂದ ಸೀದಾ ಓಡಿದರೆ ನಮ್ಮೂರಿಗೆ ನಿಲ್ಲುತ್ತೇನೆ. ಹಾಗೆ ಓಡಲೇ ಬೇಕೆ ಎನಿಸಿತು. ಹುಡುಗಿಯರ ಹತ್ತಿರ ಹೋಗೋಣವೆಂದರೆ ಅವರಾರೂ ಈ ಪ್ರಪಂಚದಲ್ಲಿ ಇಲ್ಲವೇನು ಎನ್ನುವಷ್ಟರ ಮಟ್ಟಿಗೆ ಮಾತು ನಗು ಹರಟೆಗಳಲ್ಲಿ ತಲ್ಲೀನವಾಗಿದ್ದರು. ನಾನು ಎಲ್ಲಿ ಹೋಗಬೇಕೆಂಬುದೇ ತಿಳಿಯದಾಯಿತು ತುಸು ಧೈರ್ಯ ತಂದುಕೊಂಡು ಅಲ್ಲಿ ಹೊರಟಿದ್ದ ಉಪನ್ಯಾಸಕರನ್ನು ಕೇಳಿದಾಗ ಅವರದಕ್ಕೆ ಸಮಂಜಸ ಉತ್ತರ ನೀಡಿ ಬೆರಳು ಮಾಡಿ ನಮ್ಮ ತರಗತಿಯನ್ನು ತೋರಿಸಿ ಹೊರಟು ಹೋದರು. ಅವರಿಗೆ ಮನದಲ್ಲೇ ಕೃತಜ್ಞತೆಗಳನ್ನು ಸಲ್ಲಿಸಿ ಅವರು ತೋರಿದ ಕಡೆ ಹೊರಟೆ. ಒಳಗಡೆ ಹೋದೆ ಹುಡುಗರ ಹುಡುಗಿಯ ಒಟ್ಟೊಟ್ಟಿಗೆ ಕುಳಿತಿದ್ದನ್ನು ನೋಡಿ ವಿಚಲಿತಳಾದೆ ನಾನೆಲ್ಲಿ ಕೂಡಬೇಕು ಅಂತಾ ಗಾಬರಿಯಿಂದ ನಿಂತಿದ್ದನ್ನು ಕಂಡು ಒಬ್ಬಳು ಕರೆದು ಕೂಡಿಸಿಕೊಂಡಳು. ಸ್ವಲ್ಪ ಹೊತ್ತಿನ ನಂತರ ಒಬ್ಬ ಉಪನ್ಯಾಸಕರು ಬಂದು ಒಂದೇ ಸಮ ಏನೇನೋ ಹೇಳಿದರು. ಒಂದೂ ಅರ್ಥವಾಗಲಿಲ್ಲ ಬೇರೆಯವರನ್ನು ಗಮನಿಸಿದೇ ಎಲ್ಲರೂ ಅವರವರದೇ ಲೋಕದಲ್ಲಿ ಇದ್ದರು ಯಾರೋ ಫೋನ್‌ನಲ್ಲಿ ಇನ್ನಾರೋ ನಗುತ್ತಾ ಮತನಾಡುತ್ತಾ ಯಾರಿಗೂ ಪಾಠದ ಕಡೆ ಗಮನವೇ ಇರಲಿಲ್ಲ. ಅವರು ತಮ್ಮ ಉಪನ್ಯಾಸ ಮುಗಿಸಿ ಬಂದ ಹಾಗೇ ಬಂದು ಹೋದರು ಆದರಂತೆ ಅಂದಿನ ದಿನ ಎಲ್ಲರೂ ಅದೇ ರೀತಿ ಬಂದು ಹೋದರು ಅಲ್ಲಿಯ ವಾತಾವರಣಕ್ಕೆ ನನಗೆ ಆತ್ಮೀಯತೆ ಮೂಡದಂತಾಯಿತು.

ಅಲಂಕಾರಿಕ ಶಬ್ದಗಳಲ್ಲಿ ಬಣ್ಣದ ಬುರುಗನ್ನು ಎಬ್ಬಿಸಿ ಉದ್ದುದ್ದ ವಾಕ್ಯಗಳ ಸರಪಳಿಯನ್ನು ಜೋಡಿಸಿ ಏನೂ ತಿಳಿಯದ ನಮ್ಮ ಮುಂದೆ ಕಂಠಶೋಷಣೆ ಮಾಡಿ ನಮ್ಮನ್ನು ದಿಗ್ಗಾಂತಗೊಳಿಸುವುದು ಇವರ ಉಪನ್ಯಾಸ ಕಾರ್ಯಕ್ರಮವಾಗಿತ್ತು. ಈ ಉಪನ್ಯಾಸದಲ್ಲಿ ವಿಷಯ ವಿವೇಚನೆಗಿಂತ ಇನ್ನೊಬ್ಬರ ಅಭಿಪ್ರಾಯಗಳ ಬಾಯಿ ಪಾಠವೇ ಸರಾಗವಾಗಿ ಸಾಗುತ್ತಿತ್ತು. ಒಂದು ಪುಸ್ತಕದ ಬಗ್ಗೆ ಅವರು ಹೇಳುವ ಮಾತುಗಳಿಗಿಂತ ಇನ್ನೊಬ್ಬರು ಹೇಳಿದ ಮಾತುಗಳಿಗೆ ಪ್ರಾಶಸ್ತ್ಯವಿರುತ್ತಿತ್ತು.. ಈ ಉಪನ್ಯಾಸಗಳು ನನಗೆ ಹಿಡಿಸದಾದವು ಮುಂಗಾರು ಮಳೆ ಸುರಿಯುವ ಹಾಗೆ ಒಂದೇ ಸಮನೆ ಗಂಟೆಗಟ್ಟಲೇ ಉಪನ್ಯಾಸ ಹೇಳಿ ಹೋಗುತ್ತಿರುವ ಉಪನ್ಯಾಸಕರು ನನ್ನ ಪಾಲಿಗೆ ಚಲನ ಚಿತ್ರದ ತಾರೆಗಳಂತೆಯೇ ಕಾಣತೊಡಗಿದರು ಅಲ್ಲಿ ಗುರು ಶಿಷ್ಯ ಭಾದದ ಅಭಾವವೇ

ಕಾಣತೊಡಗಿತು. ನನಗೆ ಎಲ್ಲವೂ ಕೃತಕವಾಗಿ ಕಾಣತೊಡಗಿತು. ಉಪನ್ಯಾಸ ವೇಳೆಯನ್ನು ಬಿಟ್ಟರೆ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಗುರು ದರ್ಶನವೇ ಆಗುತ್ತಿರಲಿಲ್ಲ. ಉಪನ್ಯಾಸಕರಾದವರು ತಮ್ಮ ಪಾಡಿಗೆ ತಾವು ಕಿರುಚಿಕೊಂಡು ಹೋಗುತ್ತಿದ್ದರು. ಆದು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ತಿಳಿಯಲಿ ಬಿಡಲಿ ಅದರ ವಿಚಾರ ಅವರಿಗಿರುತ್ತಿರಲಿಲ್ಲ. ಯಾಕೋ ನನ್ನ ಹಳ್ಳಿಯ ನನ್ನ ಮೇಷ್ಟ್ರುಗಳೆಲ್ಲ ನನ್ನ ಕಣ್ಣುಮುಂದೆ ಒಂದು ಕಣ್ಣು ಹನಿಗೂಡದವು ಅವರು ನನಗೆ ಎಷ್ಟೇಲ್ಲ ಧೈರ್ಯ ತುಂಬಿ ಇಲ್ಲಿಗೆ ಕಳಿಸಿದರು. ಆದರೆ ನನಗಿಲ್ಲಿ ಉಪನ್ಯಾಸಕರೆಂಬ ಜ್ಞಾನಕೋಶಗಳ ರೀತಿ ಕಳವಳ ಹುಟ್ಟಿಸಿದೆ ನನ್ನ ಮುಂದೆ ಪದೇ ಪದೇ ಪ್ರಶ್ನೆಗಳು ಬೇಡ ಬೇಡವೆಂದರೂ ಬರತೊಡಗಿದವು.

ನಿನ್ನ ಜ್ಞಾನದಾಹಕ್ಕೆ ಇಲ್ಲಿ ಸವಿನೀರು ಸಿಗುವುದೇ ನೀನು ಬಾಯಾರಿ ಮೃಗಜಲದ ಬೆನ್ನು ಹತ್ತಿದಂತಾಯಿತೇ ? ನೋಡೋಣ ಮುಂದಿನ ದಿನಗಳಲ್ಲಿ ಇದಕ್ಕೆಲ್ಲ ಉತ್ತರ ಸಿಕ್ಕು ನನ್ನ ಗುರಿ ನಾನು ತಲುಪಬಹುದಾ ಹೇಗೆ ಎಂದು?

ಬೆಂಗಳೂರು ಏಕೆ???



**Dr. C.K. Narayanappa**

Designation : Associate Professor

Department : Medical Electronics

ಎಲ್ಲರೂ ಇಚ್ಛಿಸುವರು ಬರಲು ಈ ಊರಿಗೆ  
ಯಾರೂ ಇಚ್ಛಿಸರು ಮರಳಲು ತವರಿಗೆ  
ಇಲ್ಲಿವೆ ಅನೇಕಾನೇಕ ನೆನಪಿನ ತಾಣಗಳು  
ಆದರೂ ಕಡಿಮೆಯಾಗುತ್ತಿವೆ ಕರೆ-ಮಸಣೆಗಳು  
ಇಲ್ಲದೆ ಹಳೆಯ ಸುಂದರ ಲಾಲಬಾಗ ಉದ್ಯಾನವನ  
ವರ್ಷಪೂರ್ತಿ ಪುಷ್ಪಗಳು ಅರಳುತ್ತಿರಲು ಮಾಡುತ್ತಿಹರು ಪುನರುಜ್ಜೀವನ  
ದೇಶವಿದೇಶ ಮಂದಿಯರ ಆಗಮನ  
ಸೆಳೆದಿದೆ ಪ್ರತಿಯೊಬ್ಬರ ಗಮನ  
ಅನಿವಾಸಿ ಭಾರತೀಯರು ಅಲ್ಲಿಂದಲೇ ಮಾಡುತ್ತಿಹರು ನಮನ  
ಸ್ವಚ್ಛ ಭಾರತ ಅಭಿಯಾನದ ಕಡೆಗೆ ನೀಡಿ ಮನ  
ಇಲ್ಲಿರುವುದಿಲ್ಲ ಯಾವುದರ ದುಗುಡ-ದುಮ್ಮಾನ  
ಕೇಂಪೇಗೌಡ ಅಂತರಾಷ್ಟ್ರೀಯ ವಿಮಾನ ನಿಲ್ದಾಣದ ಬಳಿ ಇರುವ ನಾ....  
ಈ ಊರಿನ ಅಭಿವೃದ್ಧಿಗೆ ಸಾರ್ಥಕರು ಸಾವಿರಾರು  
ಆದರೂ ಇಲ್ಲಿವೆ ತಂಟೆ-ತಕರಾರು ನೂರಾರು  
ಭಾಷೆ-ಮತ-ಉಡುಗೆ ತೊಡುಗೆಗಳು ಹಲವಾರು  
ಮನದಲ್ಲಿರುವಂತೆ ಮಾಡಿ ಇಲ್ಲಿ ವಾಸಮಾಡುತ್ತಿಹರೆಲ್ಲರೂ ಚಿರಪರಿಚಿತರು  
ನೀವೇ ನಿರ್ಧರಿಸಿ ದೇಶ ದೋಹ ಚಟುವಟಿಕೆಗಳ (ಅ)ಪರಿಚಿತರು!!!

ಸೊಗಸು

ನಿನ್ನೆಯು ಮುಗಿದಿದೆ, ನಾಳೆಯು ಬರುತ್ತಿದೆ  
ಇಂದು ನಮ್ಮದೇ, ಚಿಂತೆ ಏತಕೆ?  
ದ್ವೇಷವ ದೂಷಿಸು, ಪ್ರೀತಿಯ ಪಸರಿಸು  
ಹಿರಿ-ಕಿರಿಯರ ಗೌರವಿಸು ಸ್ನೇಹವ ಗಳಿಸು  
ಇರಲಿ ಒಂದು ಕನಸು, ಮಾಡು ಅದರ ನನಸು  
ಜಟಿಲವಾಗಿಸು ಮನಸು  
ಕಳೆಯುತ್ತಿಹುದು ವಯಸು  
ಸಾಧಿಸಿದರೆ ಜೀವನವೇ ಒಂದು ಸೊಗಸು

## ನನ್ನ ಅಮ್ಮ



### Mahantesh Angadi

Designation : Programmer

Department : IT

ಕಣ್ಣೆರೆದೊಡನೆ ತಬ್ಬಿ ಅತ್ತೆಯಿಸಿದಳು,  
ಹಸಿದ ಹೊಟ್ಟೆಗೆ ಎದೆಹಾಲುಣಿಸಿದವಳು,  
ನಗುತ್ತ ಕೇಕಿ ಹಾಕುವಾಗ ನಲಿದವಳು  
ನನ್ನ ಅಮ್ಮ

ತೆವಳುತ್ತಾ ಬರುವಾಗ 'ಬಾ' ಎಂದು ಕೈ ಚಾಚಿದವಳು,  
ತೊದಲುತ್ತಾ ನುಡಿದಾಗ ತಿದ್ದಿ ಮಾತು ಕಲಿಸಿದವಳು,  
ಉಣ್ಣಲು ಅತ್ತಾಗ ಚಂದದಾ ಕಥೆಕಟ್ಟಿ ಹಸಿವ ತೊರೆಸಿದವಳು,  
ನನ್ನ ಅಮ್ಮ

ಕಲಿಕೆಗೆ ಸ್ಫೂರ್ತಿಯಾಗಿ ಕಲಿಯಲು ಪ್ರೇರೇಪಿಸಿದವಳು  
ಕಲಿತೊಡನೆ ಮೆಚ್ಚಿ ಬಿರುದುಗಳ ಮಳೆ ಸುರಿದವಳು  
ಕುಣಿಯೆಂದು ಹೇಳಿ ಕುಣಿಯದಿದ್ದಾಗ ತಾನೂ ಕುಣಿದವಳು  
ನನ್ನ ಅಮ್ಮ

ನನ್ನೆತ್ತು ಹೊತ್ತು, ಹೊತ್ತೊತ್ತಿಗೆ ಆರೋಗ್ಯ ಮಾಡಿದವಳು  
ಎಂದೂ ಬಾರದ ಜ್ವರಬಂದಾಗ ಕಂಬನಿಯಿಟ್ಟು ಮದ್ದು ನೀಡಿದವಳು  
ನೂರೂರ ಚಂದಮಾಡಿ ನೀನೆ ಚಂದವೆಂದು ಹೊಗಳಿದವಳು  
ನನ್ನ ಅಮ್ಮ

ಅರಿಯದೆ ತಪ್ಪಾಗಿ ನಡೆದಾಗ ಕೊಂಕಾಡಿ ಕೇಣಕಿ ರೇಗಿದವಳು  
ಮತ್ತೆ ಯವ್ವನದಿ ಇದು ಸಹಜವೆಂದು ತನ್ನ ಭುಜಗಳಲ್ಲಿ  
ತಲೆಯಿಡಿಸಿ ಮುದ್ದಿಸಿದವಳು ಎಂದೆಂದೂ ಸಿಗದ ಮಮತೆಯ  
ನೀಡಿದವಳು ನನ್ನ ಅಮ್ಮ

ಅರಿಯದೆ ತಪ್ಪಾಗಿ ನಡೆದಾಗ ಕೊಂಕಾಡಿ ಕೇಣಕಿ ರೇಗಿದವಳು  
ಮತ್ತೆ ಯವ್ವನದಿ ಇದು ಸಹಜವೆಂದು ತನ್ನ ಭುಜಗಳಲ್ಲಿ  
ತಲೆಯಿಡಿಸಿ ಮುದ್ದಿಸಿದವಳು ಎಂದೆಂದೂ ಸಿಗದ ಮಮತೆಯ  
ನೀಡಿದವಳು ನನ್ನ ಅಮ್ಮ

ಎಲ್ಲವೂ ಮುಗಿಯಿತು ಇನ್ನು ನಿನ್ನದೇ ಹೊಣೆ ಎಂದು ಕೈ ಸೋತಳು  
ಅದೇಕೋ ಅಂದು ತನ್ನಲ್ಲಿಯೇ ಇರೆಂದು ಹಠಮಾಡಿದವಳು  
ಬರುವೆನೆಂದು ಹೊರಟೊಡನೆ ಕಂಬನಿಯಿಟ್ಟು,  
ಬದುಕು ಬಂಗಾರವಾಗಲಿ ಎಂದು ಹರಸಿದಳು ನನ್ನ ಅಮ್ಮ

ಅದೇಕೋ ಇಂದು ಎಲ್ಲರಿಂದ ಮರೆಯಾಗಿರುವಳು  
ಕಾಣದ ಊರಿಗೆ ಅತಿಥಿಯಾಗಿ ಪ್ರಯಾಣ ಬೆಳೆಸಿರುವಳು  
ತನ್ನೂರಿಗೆ ತನ್ನವರನ್ನು ಬಿಟ್ಟು ತಾನೊಬ್ಬಳೇ ಹೊರಟಳು  
ಕೊನೆಗೆರೆಡು ಮಾತನ್ನೂ ಆಡದೆ ಕಣ್ಮರೆಯಾದಳು ನನ್ನ ಅಮ್ಮ  
ಸಿಗುತ್ತಿಲ್ಲ ಪದಗಳೆಂದು ಆಕೆಯ ಬಣ್ಣಿಸಲು  
ಬಾಳ ಬೇತನ ಇವಳು  
ಕೊನೆಗೆರೆಡೇ ಮಾತು ನನ್ನವು  
ನನ್ನ ಮೌನವೇ ಅವಳಿಗೆ ನಮನಗಳು  
ಸದಾ ಮನದಿ ಚಲುಮೆ ಅವಳು  
ನನ್ನ ಅಮ್ಮ!!!

## ಬದುಕು



### Priyanka B Patil

USN : 1MS161S415

Semester : 8<sup>th</sup>

Department : ISE

ಭೂಮಿಗೆ ಬಿದ್ದಾಕ್ಷಣ ಚೀರಿ ಚೀರಿ ಅಳುವ  
ಮರಳಿ ಭೂಮಿಗೆ ಸೇರುವಾಗ ನಿನ್ನವರು ಅಳುವರು  
ಹೊಸ ಬಟ್ಟೆ ತೊಡಿಸಿ ಸಂಭ್ರಮಿಸುವರು ಜನಿಸಿದಾಗ  
ಮೈಮೆಲಿನ ಎಲ್ಲ ವಸ್ತುವನ್ನು ತೆಗೆವರು ಮರಣಿಸಿದಾಗ  
ಜನುಮನಾಮ ಇಡಲೆಂದು ತಲೆಬಿಸಿ  
ಮಾಡಿಕೊಂಡು ಛಂದದ ಹೆಸರನಿಡುವರು  
ಉಸಿರು ನಿಂತ ಮೇಲೆ ಒಂದೇ  
ಮಾತಿನಲ್ಲಿ ಶವ ಎಂದು ಬಿಡುತ್ತಾರೆ  
ಹುಟ್ಟಿದಾಗ ಏನೇನೂ ತರಲಿಲ್ಲ  
ಬಂದ ಮೇಲೆ ಗಳಿಸಿ ಗಳಿಸಿ ಗುಡ್ಡೆ ಹಾಕಿ  
ಎಲ್ಲವೂ ನನ್ನದು ಎಂದು ಜಂಭವಟ್ಟೆ  
ಮರಳಿ ಮಣ್ಣಲ್ಲಿ ಮರಳಾಗಿ ಹೋಗುವಾಗ  
ನಿನ್ನದು ಎಂದು ತೆಗೆದುಕೊಂಡು ಹೋಗಲು  
ಇಲ್ಲೇನು ಬಿಟ್ಟಿರುವೆ ?

## ಅಮ್ಮ



### Ravi H R

Designation : Assistant Instructor

Department : EEE

ಪ್ರೀತಿಯ ಕಡಲು ಕರುಣೆಯ ಒಡಲು  
ನಲೆಯ ನೆರಳು ನೀನು  
ಕೋಪವೇ ಇಲ್ಲದ ದ್ವೇಷವ ಅರಿಯದ  
ಸಹನೆಯ ಮೂರ್ತಿ ಏನು?  
ಬಣ್ಣಿಸಲಾಗದ ಎರಡಕ್ಷರದ ಒಡತಿ  
ಉಸಿರ ನೀಡಿದ ಮನವನು ಮಿಡಿದ ಪಾರ್ವತಿ।

ಅಳೆಯಲಾರೆ ನಿನ್ನಯ ಸಹನೆ  
ಮರೆಯಲಾರೆ ನಿನ್ನಯ ಕರಣೆ  
ಭೂಮಿಗೆ ಬಂದ ದೇವರು ನೀನು  
ಇಂಪು ತಂಪು ನಿನ್ನದೆ ಏನು?  
ಬೆಳಕಿನ ಹಾಗೆ ನಿನ್ನಯ ಗುಣವು  
ಹೂವಿನ ಹಾಗೆ ನಿನ್ನಯ ಮನವು  
ಬಂದರೂ ಒಮ್ಮೆಯೇ ನೂರಾರು ನೋವು  
ನಗುತಲೇ ಬಾಳುವೇ ನೀ ದಿನವು।

ಯಾರು ಕೊಟ್ಟರು ನಿನಗೆ ಈ ಶಕ್ತಿಯ  
ತೀರಿಸಲಾಗದ ಉಹಗೂ ನಿಲುಕದ ನಿಧಿಯ  
ಅರ್ಥಿಸಲಾಗದ ಪದವೇ ಅಮ್ಮ  
ನಿನಗೆ ನೂರು ನೂರಾರು ಜನ್ಮ  
ಉಸಿರಲಿ ಉಸಿರ ನೀನಿಟ್ಟು  
ಹಸಿವು ನಿಧಿರೆಯ ನೀ ಬಿಟ್ಟು  
ಮುತ್ತಿನ ಮಾತಿನ ಸವಿಯಿಟ್ಟು  
ನೀಡಿದೆ ಬದುಕ ಪಣವಿಟ್ಟು।

ನಿನ್ನ ಇಂಪಾದ ದನಿಗೆ  
ಹೂವು ಅರಳಿ ಕಂಪು ಸೂಸುವುದು  
ನಿನ್ನ ತಂಪಾದ ನುಡಿಗೆ  
ಮಾಮರ ಚಿಗುರಿ ಕೋಗಿಲೆ ಹಾಡುವುದು।  
ತೀರಿಸಲಾಗದ ಋಣ ನಿನ್ನ ಅಮೃತದ ಗುಣ  
ಕಣ್ಣಿಗೆ ಕಾಣುವ ವರವನು ನೀಡುವ ಆ ದೇವರ ಗುಣ  
ನಿನ್ನ ಸನಿಹದಲಿ ಕಾಮನಬಿಲ್ಲು  
ನಿನ್ನ ಮಡಲಿನಲಿ ಮೊದಲ ಸೊಲ್ಲು  
ಎಲ್ಲಾ ವಸ್ತುಗೂ ಗುಣಗಳು ಉಂಟು  
ನಿನ್ನ ಗುಣಗಳು ನೂರೆಂಟು  
ನಿನ್ನ ಪ್ರಿಯದು ಬಿಡಿಸಲಾಗದ ನಂಟು  
ಅರ್ಥಿಸಲಾಗದ ಪದವೇ ಅಮ್ಮ  
ನಿನಗೆ ನೂರು ನೂರಾರು ಜನ್ಮ।

## ನಿದ್ದೆ



**Raghavendra S P**

USN : 1MS17CV088

Semester : 4<sup>th</sup>

Department : Civil Engineering

ನಿದ್ದೆಯ ಮಾಯೆ ಬರುವಳು ಗಂಭೀರ ತರಗತಿಗೆ...

Permission ಇಲ್ಲದೇ mission impossible

speed ನಲ್ಲಿ ಒಳನುಗ್ಗುವಳು...

ಮೊದಲಿಗಿಗೆ ಆದ್ಯತೆ ನೀಡದೆ ಲಾಸ್ಟ್ ಬೆಂಚ್ ಹೊಕ್ಕುವಳು....

ಕೈಯನ್ನು ಕೆನ್ನೆಗೆ ತಾಕಿಸಿ...

ನೋಟವನ್ನು ದಿಟ್ಟಿಸಿ...

ಸಿಂಹ ಗರ್ಜನೆಯಂತೆ ಆಕಳಿಸಿ....

ಮುಂದೆ ಇರುವವರನ್ನು ಮರೆಮಾಡಲು ತಳ್ಳಿಸಿ....

ಸೋಂಟೇರಿತನವನ್ನು ನಲಿಸಿ....

ತಲೆಯನ್ನು ಹಿಂದಕ್ಕೆ ಮುಂದಕ್ಕೆ ತೂಕಡಿಸಿ ಕುಣಿಸಿ...

ಮನಸ್ಸನ್ನು ನಿದ್ರಾವಸ್ಥೆಗೆ ಕಲಿಸುವಳು...

Sleeping beauty ಯನ್ನು ಕರೆಸುವಳು

ಬೋರ ನೀರು ಚಿಮ್ಮುವಂತೆ....

Boring ಕ್ಲಾಸ್‌ನಲ್ಲಿ ಜೋಲ್ಲನ್ನು ಚಿಮ್ಮಿಸುವಳು.....

(ಸ್ವಪ್ನ : ನಾನು ನಿದ್ರೆಗೆ ಜಾರಿಲ್ಲ, ಜಾರಿದವರನ್ನು ಕಂಡು ಗೀಚಿದೆ)

## ಆಗುವೆ

ಲತೆಗೆ ಮರವಾಗುವೆ

ಕಥೆಗೆ ಬರಿಯೋ ಪೆನ್ ಆಗುವೆ

ವೃಥೆಗೆ ಹರಿಯೋ ಕಣ್ಣೀರಾಗುವೆ

ನಗೆಗೆ ಮೂಡೋ ಪನೀರಾಗುವೆ

ಮುಳ್ಳು ಹಾದಿಯಲ್ಲಿ ಗುಲಾಬಿಯ ಪರಿಮಳ ಸವಿದು ಸಾಗುವೆ

ಸ್ವಚ್ಛ ಮಾಡುವ ಶುದ್ಧ ಜಲವಾಗುವೆ

ಕುಕ್ಕಿದರು ಜಾಗ ನೀಡೋ ಮರವಾಗುವೆ

ಮುದ್ದಾದ ನಲ್ಲೆಯರ ಕತ್ತಲ್ಲಿ ಮೆರೆವ ಸರವಾಗುವೆ

ಆಗ್ನೇಕಾದ್ರೆ ಆಗುವೆ ಎಂಬುದು ಮನದ್ದಲ್ಲಿ ಆಗಬೇಕು

ಆಗುವುದಾದ್ರೆ ಮೊದಲು ಮಾನವನಾಗುವೆ

ವಿಶ್ವ ಮಾನವನಾಗಿ ಪ್ರಕೃತಿಗೆ ತಲೆಬಾಗುವೆ....

## HINDI ARTICLE AND POEMS

### बचपन: एक ख्वाब



**Jai Shankar Prasad**

USN : 1MS17EE025

Semester : 4<sup>th</sup>

Department : EEE

कुछ धुंध यु यौवन पे छाई हैं,  
हां बचपन, आज याद फिर तुम्हारी आई हैं।।

थकी आँखों का क्या कहना,  
शिकायत अब नींदों से रहती है।  
देर तलक अब रातों को,  
ये मुझको समझाया करती हैं।।

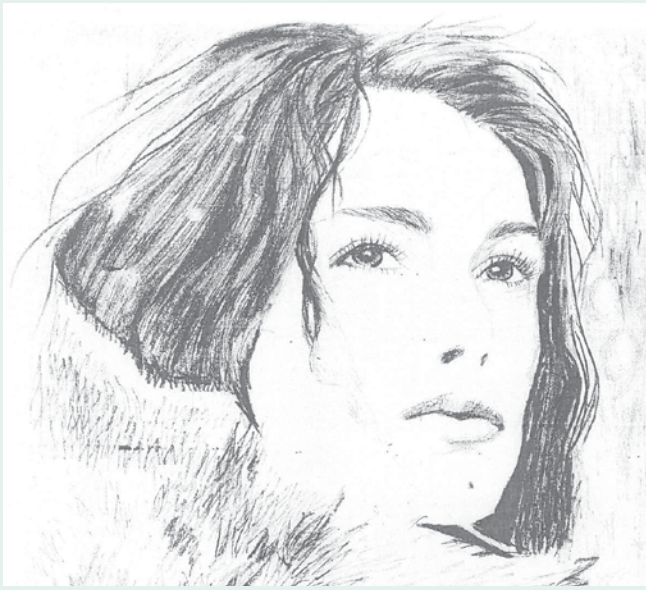
लौट चलो ना, उन गलियों में,  
फिर खो जाने को।  
खो चुके हो अगर खुद को,  
तो चलो पा लो अपने आप को।।

चलना तो मैं सीख लिया, अब उड़ना चाहता हूँ,  
नीले नभ के गहराई में।  
ये मैं ही हूँ ना,  
तो क्यों ढूँढता हूँ खुदको, दूसरों की परछाई में।।

बस, रह लिया गुम नाम सा,  
अब एक नाम चाहिए।  
देखा है तपिश-ये-दोपहर मैंने,  
अब एक शाम चाहिए।



## SKETCHES



**Somavarapu Swathi**

Semester : 4<sup>th</sup>

Department : Chemical



**Tejaswini N Reddy**

Semester : 2<sup>nd</sup>

Department : Medical Electronics



**Rohit V**

Semester : 2<sup>nd</sup>

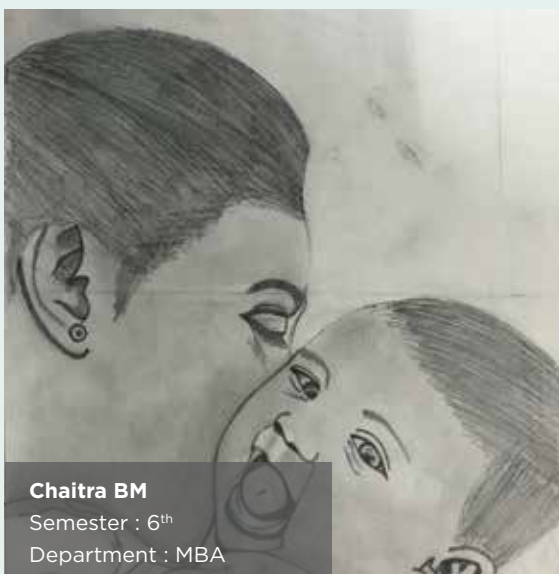
Department : CSE



**Samyuktha H R**

Semester : 6<sup>th</sup>

Department : CSE



**Chaitra BM**

Semester : 6<sup>th</sup>

Department : MBA



**Akhil**

Semester : 2<sup>nd</sup>

Department : MBA

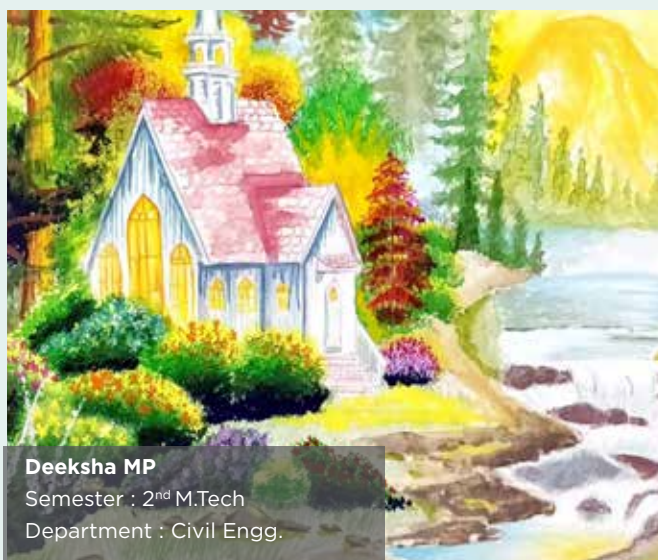


## PAINTINGS



**Deeksha. M. P**

Semester : 4<sup>th</sup>  
Department : Civil Engg.



**Deeksha MP**

Semester : 2<sup>nd</sup> M.Tech  
Department : Civil Engg.



**Darshini D Pavankar**

Semester : 4<sup>th</sup> M Tech  
Department : Civil Engineering



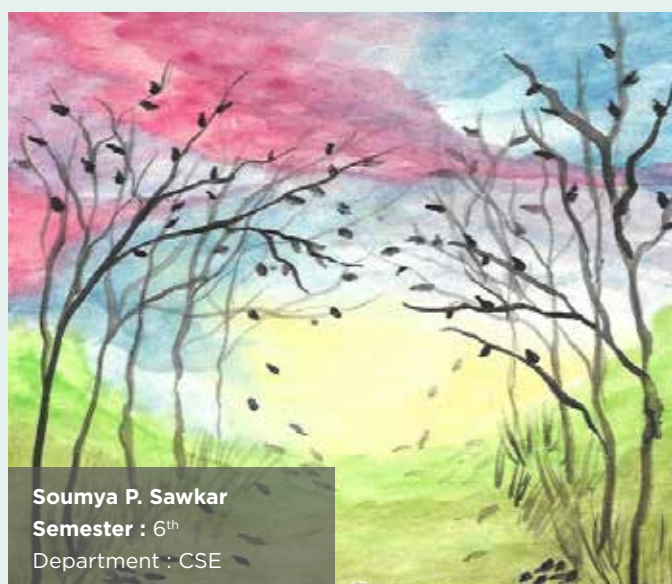
**Reshma S**

Semester : 2<sup>nd</sup>  
Department : Architecture



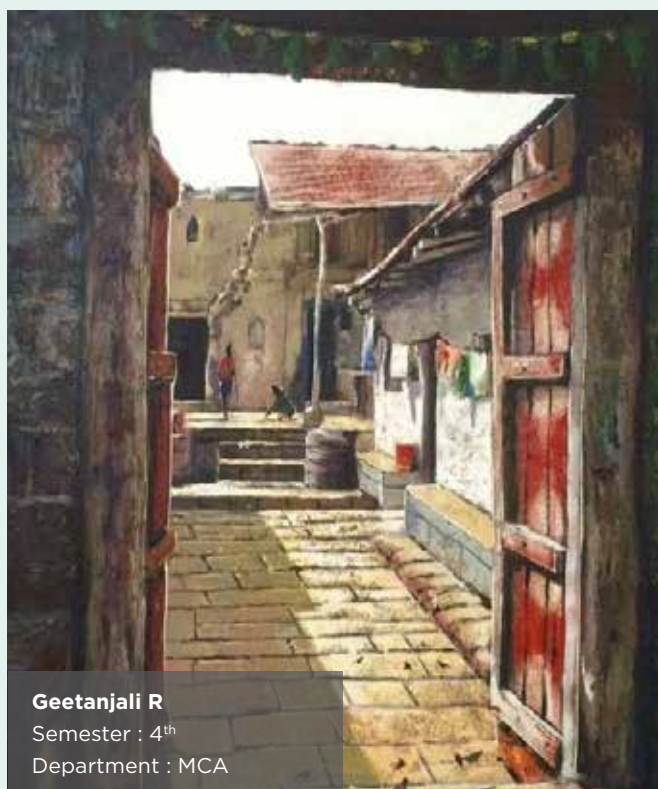
**Vibha Sri R. G.**

Semester : 2<sup>nd</sup>  
Department : Architecture



**Soumya P. Sawkar**

Semester : 6<sup>th</sup>  
Department : CSE



**Geetanjali R**

Semester : 4<sup>th</sup>  
Department : MCA



# PHOTOGRAPHY



**Saurabh Kumar**  
Semester : 4<sup>th</sup>  
Department : MCA



**Rithvik Vasishta S**  
Semester : 4<sup>th</sup>  
Department : CSE



**H S Priyanka**  
Semester : 6<sup>th</sup> B.E  
Department : Civil Engineering



**Nitish Reddy**  
Semester : 6<sup>th</sup> B.E  
Department : Civil Engineering



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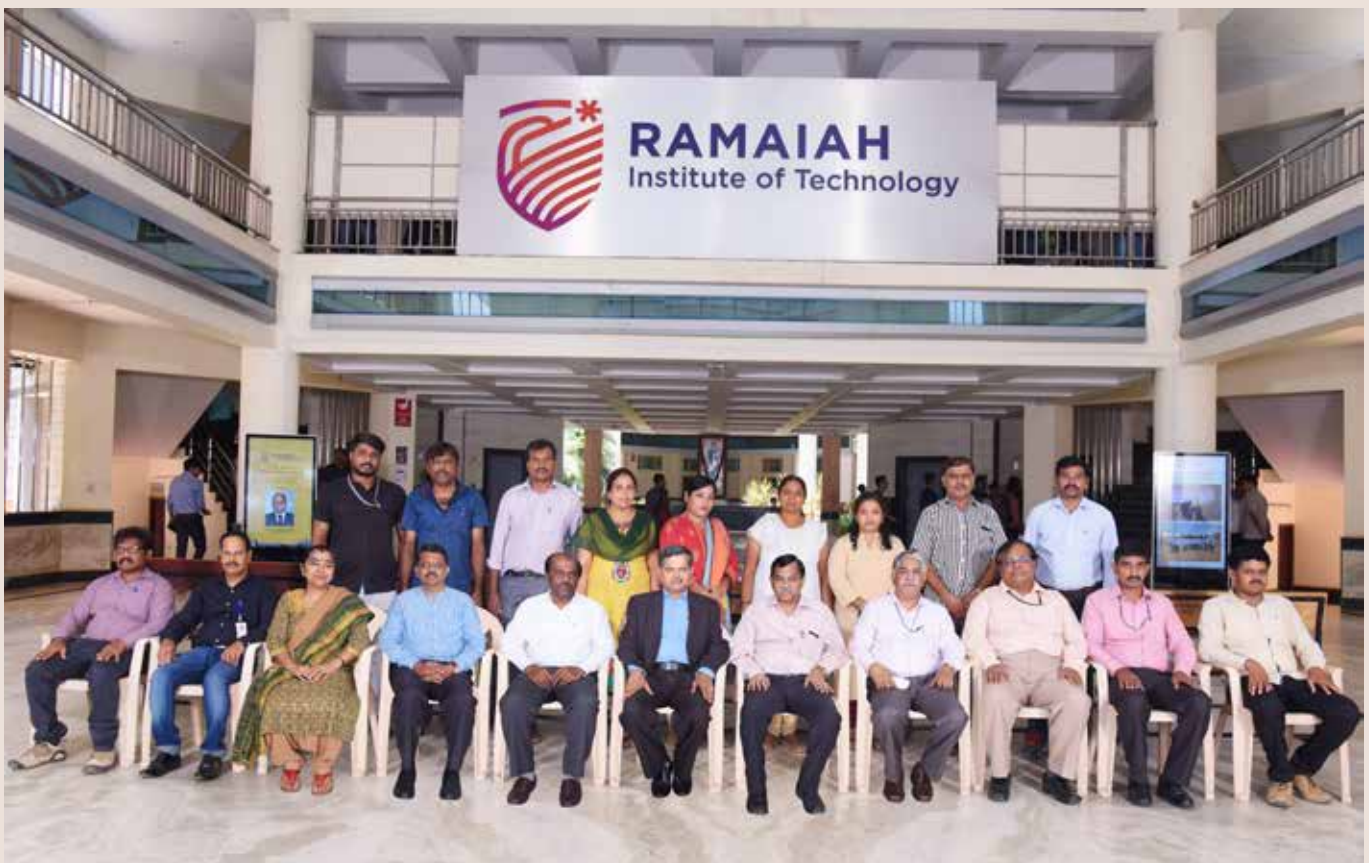


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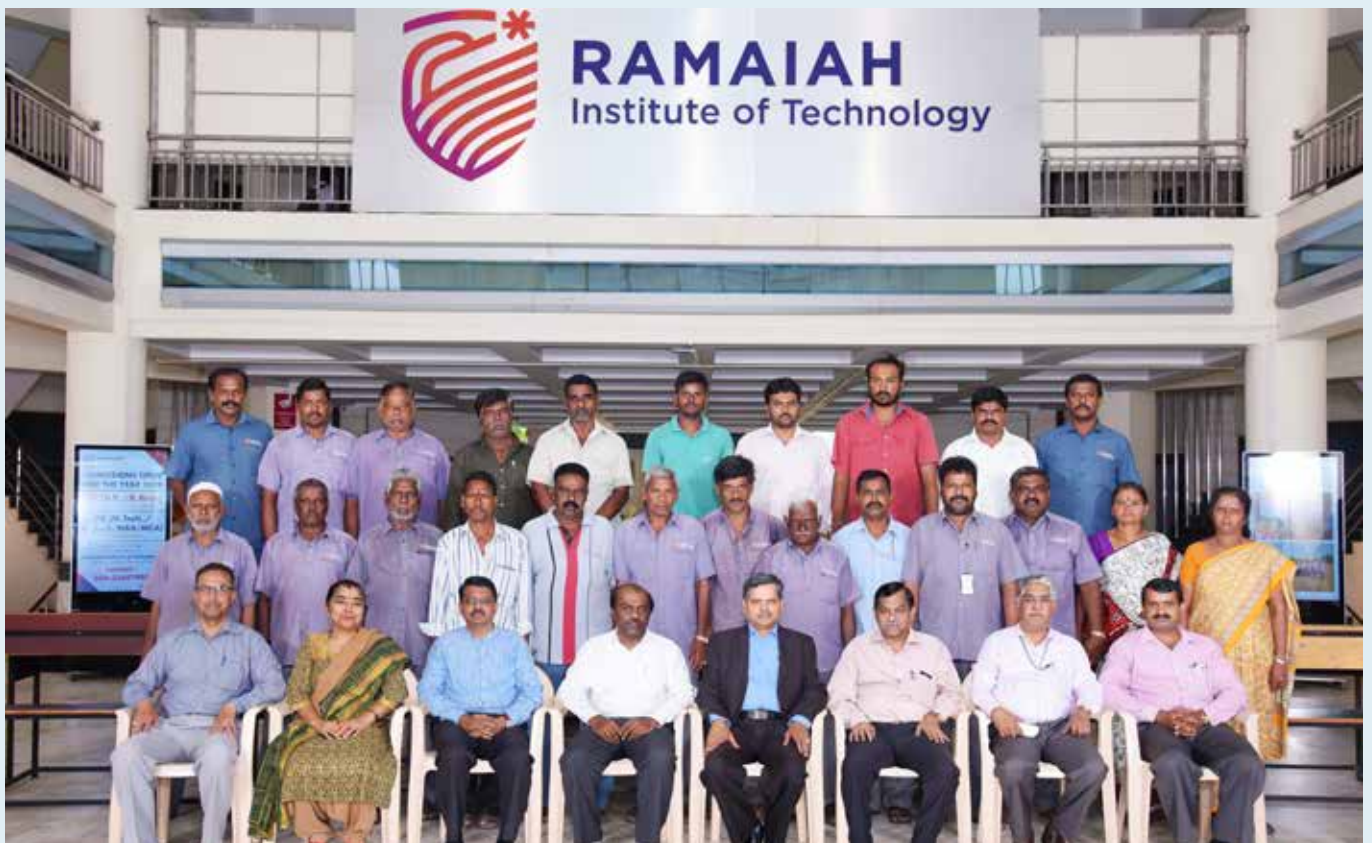


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**KABADDI TEAM-WOMEN**





**KHO-KHO TEAM-MEN**



**KHO-KHO TEAM-WOMEN**





**THROW BALL TEAM-WOMEN**



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- Electronics & Instrumentation Engineering
- Information Science & Engineering
- Telecommunication Engineering
- Medical Electronics
- Biotechnology

## Five Years Bachelor of Architecture

- Architecture

## Post Graduate Programs Offered

- MBA Programme
- MCA Programme

## Master Of Technology (M.Tech.) Programs

2 Years Programs

- Structural Engineering
- Manufacturing Science & Engineering
- Computer Integrated Manufacturing
- Computer Science & Engineering
- Digital Electronics & Communication
- Software Engineering
- Computer Applications in Industrial Drives
- Digital Communication
- Industrial Engineering
- Biotechnology
- VLSI Design and Embedded Systems
- Computer Network Engineering

## Master of Architecture

- Landscape Architecture

## Research Leading to Ph.D / M.Sc (Engg.) are offered

- Civil Engineering
- Mechanical Engineering
- Electrical and Electronics Engineering
- Electronics & Communication Engineering
- Chemical Engineering
- Computer Science & Engineering
- Industrial Engineering & Management
- Biotechnology
- Electronics & Instrumentation Engineering

- Information Science & Engineering
- Telecommunication Engineering
- Medical Electronics
- Chemistry
- Physics
- Mathematics
- MBA
- MCA



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