

SYNAPSE'22

DEPARTMENT OF MEDICAL ELECTRONICS
ENGINEERING



B. M. S. COLLEGE OF ENGINEERING





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Academic year 2021 -22

Odd semester:

HoD - Dr K. Vijayalakshmi

Even semester:

HoD - Dr Joshi Manisha S.

Welcome to the B.M.S.College of Engineering's Department of Medical Electronics Engineering. We were the first in VTU to establish Medical Electronics Engineering in 1992, and we have since proceeded on our mission to build a bridge between engineering, biology, and medicine. Medical Electronics Engineering fosters cross-disciplinary collaborations by focusing on fundamental engineering and biological ideas. We endeavour to educate people about the needs, opportunities, and employment that exist and will exist in the future. With dynamic developments in healthcare, Make in India startups, and global economies, a revolution in the healthcare sphere is on the horizon.

Over the past three decades, we have expanded our knowledge and competency in the core Medical Electronics Engineering curriculum and research. We have an undergraduate Medical Electronics Engineering programme as well as a postgraduate Biosignal Processing and Instrumentation programme. Our curriculum's principal goal is to teach students technical skills, encourage problem-solving abilities, and stimulate the development of new technologies. The course materials are updated on a regular basis to reflect new technical breakthroughs and the students are encouraged to explore a wide range of research projects. The department also has an outstanding reputation in both teaching and research, and it has built an active research profile for doing joint research with Medtech start-ups and research organisations.

MEET THE TEAM



TEACHING STAFF

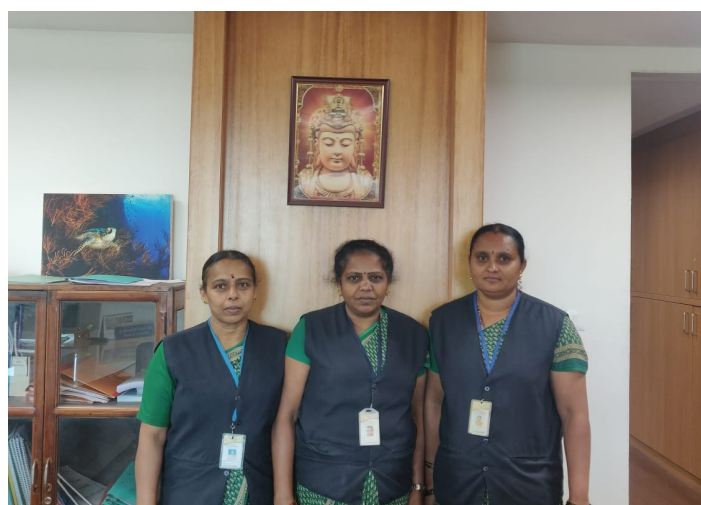
1. Dr Joshi Manisha S. - Professor and Head
2. Dr H. N. Suma - Professor
3. Dr S. B. Bhanu Prashanth - Professor
4. Dr Suma M. S. - Professor
5. Dr K. Vijayalakshmi - Professor
6. S. Y. Pattar - Associate Professor
7. Dr Beena Ullala Mata B. N. - Associate Professor
8. Dr R. Kalpana - Associate Professor
9. Dr Abhishek A. M. - Associate Professor
10. Dr Niranjana K. R. - Assistant Professor
11. Dr Jisha P. - Assistant Professor

MEET THE TEAM



NON-TEACHING STAFF

Left to right: G. P. Vanitha - Office Assistant; M. Guneshwara - FDA; R. S. Anandathirtha - In-charge Foreman; Panduranga Kulkarni - Assistant Instructor; G. L. Venkatesha - Instructor; G. Ashlesh - Technical Assistant



SUPPORT STAFF

Left to right: Gouri; Rukmini; Geetha

DR. JOSHI MANISHA S.



PROFESSOR AND HEAD OF THE DEPARTMENT

Dr. Joshi Manisha S. holds a PhD in Electronics Engineering and an MTech degree in Biomedical Instrumentations Technology. She graduated with a B.E. in Electronics Engineering from Shivaji University, Kolhapur, Maharashtra. She has a teaching experience of 24 years and is currently the Head of the Department of Medical Electronics Engineering, BMSCE. She has initiated six projects one of which was the Design and Development of a system for Nadi Pariksha in collaboration with Got. Ayurvedic Medical College, Bengaluru. This project was transferred to BOSCH Bangalore for further development. She is an author of two book chapters. Along with this, she has twenty four journal publications and fourteen conference papers under her belt. She has guided numerous UG, PG and PhD students. She holds multiple awards and scholarships, the most recent one being the Session Chair ICERECT 2018, PES College of Engineering, Mandya, Karnataka. She specialises in Medical Image Processing, Machine learning for Medical Images Biomedical Instrumentation, Embedded System Designs and Medical Imaging Medical Device Development. To top it all, she is a gifted singer.

DR. H.N. SUMA



PROFESSOR - MTech & PhD

Dr. H. N. Suma is a Professor in the Department of Medical Electronics Engineering, BMSCE, Bangalore. She heads CIME (Center for Innovation in Medical Electronics). She is an ex-member of BOG, BMSCE. She is the Chief Convener for the Center for Innovation, Incubation & Entrepreneurship (CIIE) and is also the Programme Director and SPOC for the Student Satellite Project, BMSCE. She holds a PhD in Neuroimaging and graduated with an MTech in Biomedical Instrumentation from Mysore University. She has thirty publications to her credit in international and national journals and conferences. She has undertaken collaborative projects with national and international institutions and hospitals, some of them being Biomedical Engineering School-Stanford University, FOETH-Oxford University, IISc, KIMSH, Raman Research Institute, and NIMHANS. She has executed two funded projects and a consultancy project with FOETH-Oxford University. She is the Principal Investigator for two funded projects from DST (Development of portable digital X-Ray machine) and VGST and a consultancy project (Development of an automated ophthalmic KIOSK) in collaboration with NTU and TTSH, Singapore. Her research interests are in medical imaging, brain mapping, brain warping, neural networks, and pattern recognition.

DR. S.B. BHANU PRASHANTH



PROFESSOR - MTech & PhD

Dr. S.B. Bhanu Prashanth graduated from the Indian Institute of Science, Bangalore University, with a PhD in Amorphous Semiconductors and an MTech in Instrument Technology. He was the principal investigator for the research project "Dispersion in Optical Fiber Communication Links", which was funded with Rs 20 lakh by VGST, GoK. He is currently guiding five research scholars for their doctoral programs. In addition to co-authoring the technical book Linear Integrated Circuits - Concepts and Applications, he has co-published 25 research publications in national and international journals and conferences. He is a recipient of the Dr. APJ Abdul Kalam Memorial Outstanding Teacher Award. He was also awarded with the Best Paper Award at the International Conference on Networking, Embedded, and Wireless Systems (ICNEWS-2018). His areas of interest in research include sensors, body area networks, optical fiber communication, amorphous semiconductors, and biomedical instrumentation. Poetry, literature, theatre, and psychology are among his personal interests.

DR. SUMA M. S.



PROFESSOR - MTech & PhD

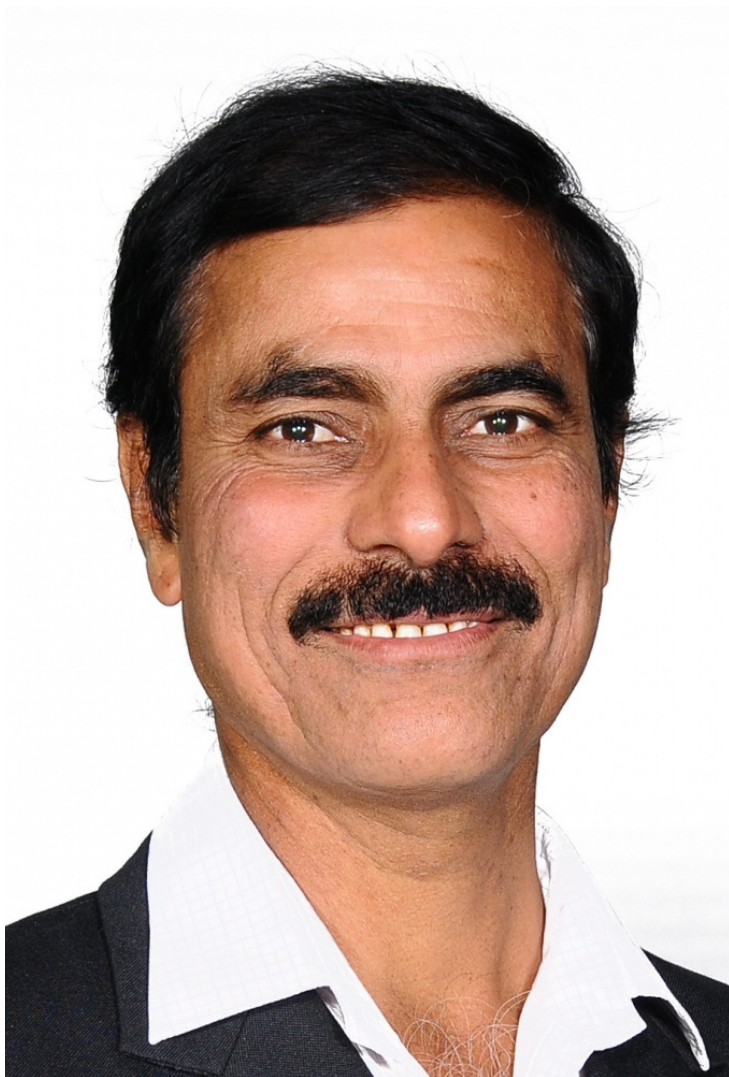
Dr. M.S. Suma is a dynamic educator who is committed to collaborative learning that engages students, staff, and the community. She holds a PhD in VLSI-DFT and an MTech degree in Electronics and Communication. She has over twenty-eight years of experience in the field of education. She has numerous publications in renowned international and national journals and conferences. She is adept at driving thought-provoking class debates to promote student engagement and learning. She is also a member of the interview panel at KNSIT. She was a reviewer for ICNEWS, 2018 and for the International Conference on " Intelligent Systems & Communication Networks", 2019. Her areas of interest in research include SoC for Biomedical Applications, Integrated Electronics & Circuits, Micro Electronics, Biomedical Circuits using VLSI, and VLSI Design Tool Technology.

DR. K. VIJAYLAKSHMI



PROFESSOR - MTech & PhD

Dr. Vijaylakshmi K. received her PhD in Biomedical Signal Processing from Vinayaka Mission University in Salem and her MTech in Biomedical Instrumentation from SJCE in Mysore. Her doctoral dissertation was titled "Independent Component Analysis of EEG Signals." She has fifteen articles published in renowned international journals and conferences. She has organised and presented multiple lectures for various workshops and has been invited to chair sessions at various events. She has worked on various collaborative projects with national and international institutions/hospitals like those of Raman Research Institute, NIMHANS, Art of Living Research Centre "Veda Vignan Maha Vidya Peeta," and Anveshana Research Centre "Gigni, Bangalore, SVYASA. She was the principal investigator and co-investigator on two DST and VGST-funded projects. She received the Best Research Proposal award at the International Conference on Cloud Computing in Emerging Markets, 2019 for presenting the paper titled 'Identification of Ultra High-Frequency Components in ECG Using Multilayer Neural Network.' Her research interests include Biomedical Signal Processing Design and Biomedical Instrument Development. She enjoys nature and is an avid traveller.



ASSOCIATE PROFESSOR - MTech (PhD)

He joined BMS College of Engineering on the 1st of March 1997 as an Assistant Professor in the Department of Medical Electronics. He was appointed as the Head of the Department of Medical Electronics from 1998 to 2009. He previously worked at MIT Manipal from 1987 to 1997. He pursued MTech in Bio-Medical Engineering from MIT, Manipal, Mangalore University and graduated with a B.E. in E & C from BVB College of Engineering, Karnataka University Dharwad. He is a BOE and BOS member for VTU and other organisations. He has published numerous papers in the field of signal and image processing, and has also guided UG and PG students on various projects. He has given a talk on BME and its Applications. His field of interest lies in signal and image processing. In addition, he has received funds from AICTE under the MODROB scheme for the Department of Medical Electronics. In 2003, he procured the Bio-signal acquisition and analysis system (BIOPAC), which is beneficial for UG and PG students to perform experiments and research.

S.Y. PATTAR

DR. BEENA ULLALA MATA B.N.



ASSOCIATE PROFESSOR - MTech & PhD

Dr. Beena Ullala Mata B. N. holds a PhD in Signal and Image Processing from Vishveshwaraya Technological University. She graduated with an MTech in Biomedical Instrumentation from SJCE, Mysore. She has almost a decade of research and over twenty-four years of teaching experience. She is presently an associate professor in the Medical Electronics Engineering department at BMSCE. She has attended and organised several workshops and seminars, and she recently gave a lecture on "Embedded Systems and Microcontroller Use in IOT" in the BMSCE training programme, Department of Physics. She has also penned a book titled "Image Processing Algorithms for Breast Cancer" on November 7, 2020. In addition to this, she has published multiple papers in renowned international and national journals and conferences. She is also the secretary for the BMSCE hostel and is a member of the Institution of Engineers, BMESI, and ISTE. Her research interests include signal and image processing, medical imaging, biomedical instrumentation, machine learning, and the development of IoT-based healthcare medical devices.

DR. R. KALPANA



ASSOCIATE PROFESSOR - MTech & PhD

Dr. Kalpana R. received her PhD in Biomedical Signal Processing from Anna University in Chennai and her MTech in Digital Communication from B.M.S. College of Engineering/VTU. She is presently an associate professor at BMSCE's Department of Medical Electronics Engineering. She is interested in working on community service projects. She has various research papers published in international and national journals and conferences. She believes in unconventional teaching techniques that can assist students expand their knowledge and skill sets. Her research interests include biomedical signal processing, biomedical instrumentation, machine learning, communication systems, and instrumentation and communication systems.

DR. ABHISHEK A.M.



ASSOCIATE PROFESSOR - MTech, M.E, PhD

Dr. Abhishek Appaji is an Associate Professor and the Institutional Coordinator for R&D at B.M.S. College of Engineering in Bangalore. He is a Massachusetts Institute of Technology Global Entrepreneurship Bootcamp graduate with a focus on new venture leadership. He holds a Bachelor of Engineering in Medical Electronics with University Rank from BMSCE, a Masters of Technology (MTech) in Information Technology, and a Masters of Engineering (M.E) in Bioinformatics from the University of Visvesvaraya College of Engineering in Bangalore. He also holds a PhD in Mental Health and Neurosciences from Maastricht University, Netherlands. In 2017 and 2018, he was appointed as Chair of the IEEE Young Professionals Bangalore Section. He is currently the Joint Treasurer and SIGHT Chair of the IEEE Bangalore Section since 2019, Treasurer of the IEEE TEMS Bangalore Chapter and India's YP lead, Webmaster and MD Chair of the IEEE PES Bangalore Chapter, and adviser to the IEEE EMB BMSCE Chapter. He has received grants from Indian agencies such as DST, DBT, and BIRAC, and from other countries. He has also worked as a research associate at the IISc at Bangalore's Centre for Nanoscience and Engineering (CeNSE). He has over 50 international/national journal publications and conferences to his credit. He has two patents filed in Medtech Space. He has been a part of a multitude of expert talks at various conferences, forums, and events. He has accolades, including the IEEE International Best Paper Award in Malaysia, the Best Nodal Coordinator Award, the Gandhian Young Technological Innovation Award 2016 at Rastrapathy Bhavan (President of India House) in New Delhi, among several others.

DR. NIRANJAN K. R.



ASSISTANT PROFESSOR - MTech & PhD

Dr. Niranjana K. R holds a PhD in Neural Networks and Artificial Intelligence from CCSU and graduated with an MTech degree in VLSI and Embedded Systems from PESIT/VTU. He has published multiple research articles in reputed journals and conferences, the most recent one being “ The Detection of Pneumonia Using Chest X-Ray Images and Image Processing Algorithms - A Comparative Study”. He has organised and attended a multitude of workshops. His research interests include Neural Networks, VLSI, and Embedded Systems. He believes in growth through different learning processes. He also goes by the principle of living a prosperous and passionate life by excelling in his work and educating himself and others along the way.



ASSISTANT PROFESSOR - M.E & PhD

Dr. Jisha P. has eight years of teaching experience. She has taught in various colleges under VTU and is currently working as an Associate Professor in the Department of Medical Electronics, B.M.S. College of Engineering, Bengaluru. She completed her PhD in Biosensors under the guidance of Dr. Suma M.S., Professor, Dept. of Medical Electronics, BMSCE, in the year 2021. She graduated with an M.E. in Computer and Communication from Anna University, Tamil Nadu. She has filed a patent under her name for "A Portable Device for Detecting Malaria Infection" and has several research publications in reputed journals and conferences. She has guided several projects for B.Tech and M.Tech students and has also received funding from DST-SERB for her research. She is the coordinator for the robotics club alongside the NBA, ISO, and Discipline Committee. Her main areas of focus lie in Biosensors, IoT based healthcare devices, and Sensor design and fabrication.

DR. JISHA P

NON-TEACHING STAFF



R. S. Anandathirtha
INCHARGE FOREMAN



G. L. Venkatesha
INSTRUCTOR



Panduranga Kulkarni
ASSISTANT INSTRUCTOR



M. Guneshwara
FDA



G. Ashlesh
TECHNICAL ASSISTANT



G. P. Vanitha
OFFICE ASSISTANT

FATHER OF ENDOSCOPY

~ submitted by Dr Joshi Manisha S.



Antonin Jean Desormeaux (1815–1894) was a French physician and inventor known as "The Father of Endoscopy" for significantly improving the early endoscope and being the first to successfully use it on a living patient.

On July 20, 1853, he presented his invention to the French Academy of Sciences in Paris.

The employment of a gasogene lamp, which comprised of a burning combination of alcohol and turpentine and offered greater illumination to prior technologies, and advances in focussing the light coming from the endoscope were the key advancements in his technology.

Desormeaux's enhancements produced brighter, more transparent light than standard candles. He was also able to alter the lens system's angles so that the light could be focused more precisely on one region.

WHO INVENTED THE STETHOSCOPE?

~ submitted by Dr Joshi Manisha S.



René-Théophile-Hyacinthe Laennec was a physician and musician from France. He was born in Quimper, Brittany, on February 17, 1781. Laennec attended the University of Paris and studied medicine. He was taught there to use sound as a diagnostic tool. In 1822, he was appointed lecturer at the Collège de France, and in 1823, he was appointed professor of medicine.

While working at the Hôpital Necker, his ability to carve his own wooden flutes led him to design the stethoscope in 1816. Laennec observed that the new stethoscope was superior, especially if the patient was overweight. He was the first to use it to diagnose various chest ailments.

He created his initial instrument as a hollow wooden cylinder measuring 25 cm by 2.5 cm, which he eventually improved to include three removable sections. The revised design included a funnel-shaped compartment removable from the body of the stethoscope to amplify the sound. The term "mediate auscultation" was created by Laennec (indirect listening). He named his instrument the stethoscope from the Greek terms **στήθος** [stethos] (chest) and **σκοπός** [skopos] (examination).

Laennec referred to the stethoscope as "the cylinder" and considered it to be his greatest legacy.

NANOGENERATORS

~ submitted by Ume Hani Jawad



Biomedical technology and healthcare services have grown exponentially in response to the rising need for safe, pleasant, and high-quality healthcare. In this environment, implantable medical devices and biomedical sensors are gradually taking the place of conventional medical devices. Engineering and biomedicine have been combined to create a class of devices called biomedical sensors that can detect or react to physiological signals. They are used to gauge the body's temperature, blood flow, heartbeat, blood pressure, and pulse. Biomedical sensors are crucial components of medical equipment that function similarly to a sensory organ that detects vital signs and enhances a doctor's field of perception.

Implantable medical devices integrate smart electronic manufacturing technology with medicine to offer patients practical, quick, and precise medical care. Postoperative rehabilitation through early diagnosis, therapy, illness treatment, and functional organ replacement, to mention a few, has benefited greatly from a rising trend in biomedical engineering.

One of the most pressing issues is providing biological sensors and implanted electronic devices with a safe, practical, effective, and dependable power source. The current wireless power transmission mechanism causes tissue heating due to its short effective charging distance, huge equipment bulk, significant energy loss, and high electromagnetic compatibility index. As a result, problems like the energy, device size, and weight limitations cannot be successfully solved by WPT.

A nanogenerator captures thermal, nanomechanical, and micromechanical energy and transforms it into electrical energy. Three main types of nanogenerators can be distinguished based on the power generation mechanism they utilise: pyroelectric, piezoelectric, and triboelectric nanogenerators.

PyENGs transform thermal energy produced by temperature fluctuations into electrical energy, whereas PENGs and TENGs convert mechanical energy into electrical energy. A nanogenerator for biomedical uses can be powered by the thermal and mechanical energy generated by human body. As a proof-of-concept, the self-powered nanodevice was proposed in 2008 and have advanced rapidly from theoretical concepts to a deployable technology that efficiently captures various types of mechanical energy from the environment, such as wind and waves. Additionally, nanogenerators have been used to capture energy from micromechanical motions including artery contraction, pulse, breathing, and muscle contraction. Self-powered micro/nanodevices offer a practical alternative to the biomedical implanted sensors' power supply constraints.

Nanogenerators are therefore thought to be the best energy source for biomedical electronics. They can be employed as direct-use mechanical micro- or nano sensors in biomedical applications or in the treatment of certain ailments, in addition to serving as a self-powered power source for biomedical sensors.

BATCH TOPPERS

UG'22

STUDENT ACHIEVEMENTS - UG'22 & PG'22



PRANAV P.
RANK - 2



GOPIKA D.
RANK - 1



A. KRITHIKA
RANK - 3

USN	NAME	CGPA
iBM18ML021	GOPIKA D.	9.67
iBM18ML039	PRANAV P.	9.60
iBM18ML001	A. KRITHIKA	9.57

HIGHER STUDIES

NAME	HIGHER STUDIES	COMPETITIVE EXAMS	INTERNSHIP
AJAY RAJARAMAN S.	Masters in Biomedical Engineering in Georgia Institute of technology	GRE, TOEFL	METFLUX RESEARCH
CHANDANA LAKSHMAN HEGDE	MS from Darmstadt University of applied sciences, Germany	IELTS	IMEDRIX PVT. LTD.; RESEARCH INTERNSHIP WITH MAASTRICHT UMC+
CHADANA R.	MSc in Biomedical engineering , Imperial College London	IELTS	RESEARCH INTERN, MSRIT
DAKSHITHA B.	MTech/ MS	GATE	SIRI HOSPITAL
G. SIDHARTHA	MS in Computer Engineering	GRE, IELTS	BPL MEDICAL TECHNOLOGIES
HITASHREE M.M	YES	CAT	RAMAIAH INSTITUTE OF TECHNOLOGY; AXXONET PVT. LTD; EXPOSYS DATA LABS
NIDHI R. SINGH	Mtech - VLSI and Embedded systems	PGCET	VIRAL FISSION; MS RAMAIAH HOSPITAL
SAMHITA P.	Multiple offers from prestigious universities in the USA	TOEFL	ORIGIN HEALTH; RENALYX HEALTH

PLACEMENTS

NAME	PLACEMENT	COMPANY	INTERNSHIP
A. KRITHIKA	On-Campus	TCS; BHARATH ELECTRONICS	DRDO, INNACCEL, TROLEX; RESEARCH COLLAB WITH MAASTRICHT UNIVERSITY
AKSHATHA KUMKUM VIJAY	On-Campus	LEAD SQUARED	LEAD SQUARED
AMRITA CHAUHAN	On-Campus	BHARATH ELECTRONICS	BMSCE-UARK; UNIVERSITY OF MAASTRICHT MEDICAL CARE; IIT-DHARWAD
ANANYA MARKANDE	On-Campus	INDEGENE PVT. LTD.	FSM IIT-D; NEWRA TECHNOLOGIES; FLYVI TECHNOLOGIES
ANUP KUMAR PAL	On-Campus	SPRINKLR	FREE HIT
BASAVAKUMAR	Off-campus	INFOSYS	-
GAMINI R. GOWDA	On-Campus	-	QUANTIPHI
GOPIKA D.	Off-campus	ORIGIN HEALTH	ORIGIN HEALTH
HIMANSHU MISHRA	On-Campus	GOLDMAN SACHS	GOLDMAN SACHS

PLACEMENTS

NAME	PLACEMENT	COMPANY	INTERNSHIP
HRITHIK SIVADASAN	On-Campus	KPMG ASSURANCE AND CONSULTING SERVICES LLP	KPMG; RAMAIAH INSTITUTE OF TECHNOLOGY; MEDICAL ENGINEERING COMPANY WLL KUWAIT
KUSHAL SAUKAR K.	On-Campus	DELOITTE CONSULTING INDIA PVT. LTD.; INFOSYS	INNACCEL TECHNOLOGIES PVT. LTD; KALEITICS INDIA PVT. LTD
KUSUMA K. B.	On-Campus	BHARATH ELECTRONICS	BMSCE-UARK; IMEDRIX; ARNAQ MEDTECH PVT. LTD.; TRANLEAD MEDTECH PVT. LTD
M. L. DWARAKANATH	On-Campus	BHARATH ELECTRONICS	EXPOSYS DATA LABS
MADHURI SINHA	On-Campus	DELOITTE	PIROYA TECHNOLOGIES
NIKITA JAIN	On-Campus	QUANTIPHI	AIRTEL; MSRIT; HEALTHIUM MEDTECH; QUANTIPHI
SAMHITA P.	Off-campus	ORIGIN HEALTH	ORIGIN HEALTH; RENALYX HEALTH

PLACEMENTS

NAME	PLACEMENT	COMPANY	INTERNSHIP
SHASHI KIRAN L.	Off-campus	ORIGIN HEALTH	ORIGIN HEALTH; OLCADEMY; VERZEO
SHRIRAKSHA M.	Off-campus	-	QUICKRIDE
SRIRANGA A. U.	On-Campus	BHARATH ELECTRONICS	GE HEALTHCARE; DRDO
SUCHETA G. S.	On-Campus	TCS	GE HEALTHCARE
VINEETH K. C.	On-Campus	BHARATH ELECTRONICS	AXXONET SYSTEM TECHNOLOGIES PRIVATE LIMITED

BATCH TOPPERS

PG'22

STUDENT ACHIEVEMENTS - UG'22 & PG'22



SHILPA NAYAK R. L.
RANK - 1



YASHASWINI J.
RANK - 2



AMRUTHA G. R.
RANK - 3

USN	NAME	CGPA
1BM2oLBI13	SHILPA NAYAK R. L.	9.53
1BM2oLBI16	YASHASWINI J.	9.38
1BM2oLBI01	AMRUTHA G. R.	9.20

PLACEMENTS

NAME	PLACEMENT/ HIGHER STUDIES	COMPANY/ UNIVERSITY	INTERNSHIP
BHAVANI S.	Off-campus	NEUOME TECHNOLOGIES PVT. LTD.	NEUOME TECHNOLOGIES PVT. LTD.
PRERANA ANANDA MURTHY	Higher studies	-	CARDITEK MEDICAL DEVICES
ROSHNI A RAMESAN	Off-campus	ORIGIN HEALTH	ORIGIN HEALTH
SHILPA NAYAK R. L.	Off-campus	NEUOME TECHNOLOGIES PVT. LTD.	NEUOME TECHNOLOGIES PVT. LTD.
SHREYA KULKARNI	On-Campus	-	GERIATRIC INTERN AT IISC

INDUSTRIAL VISIT

CNMS LAB, JAIN UNIVERSITY, HAROHALLI

- 22nd March, 2022



ALUMNI DAY

AUDITORIUM 1, PJA BLOCK, BMSCE

- 26th March, 2022



UTSAV '22

27th, 28th & 29th May, 2022

ACTIVITIES AND EVENTS

ethnic day



mismatch day



cinema day



WORKSHOPS AND TALKS



LabView
Workshop

3rd semester
projects



Origin Health
talk by seniors

Represented college
during International
Yoga Day conference
held in Mysore



COLLEGE FAREWELL

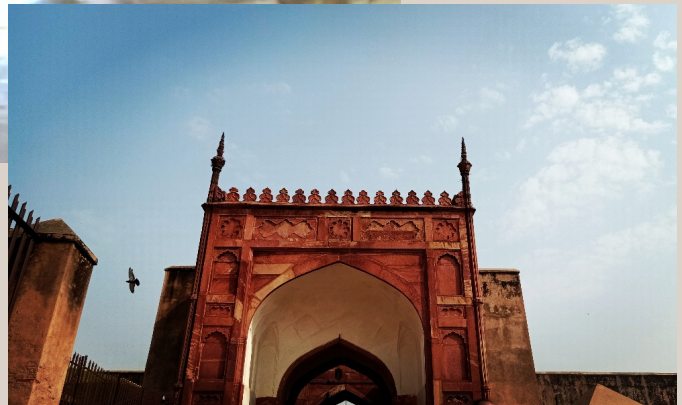
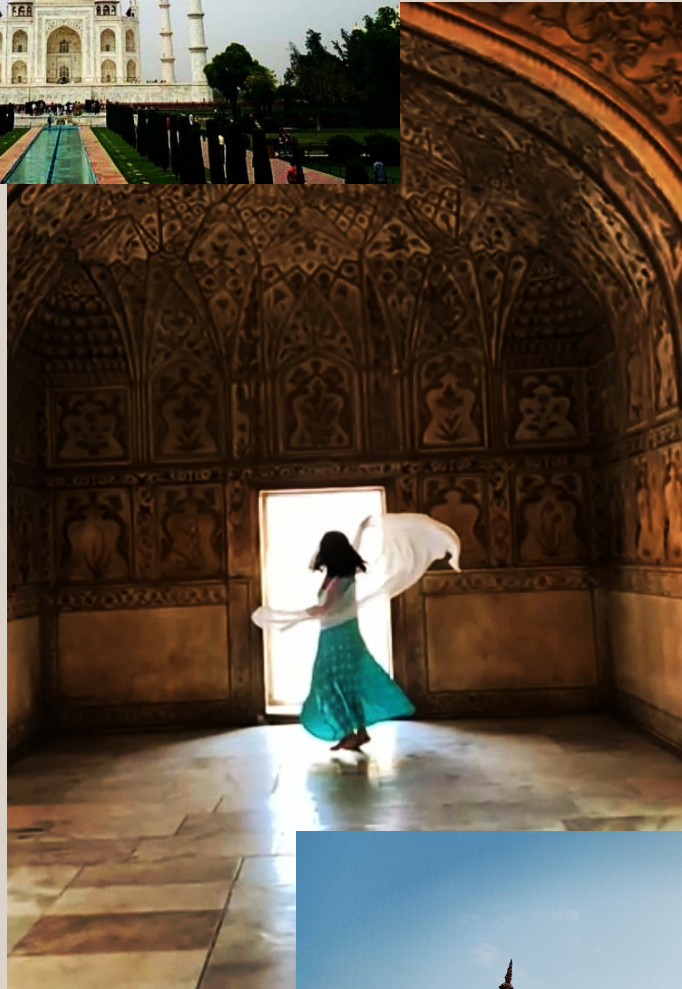


UG 2018 - 2022 BATCH



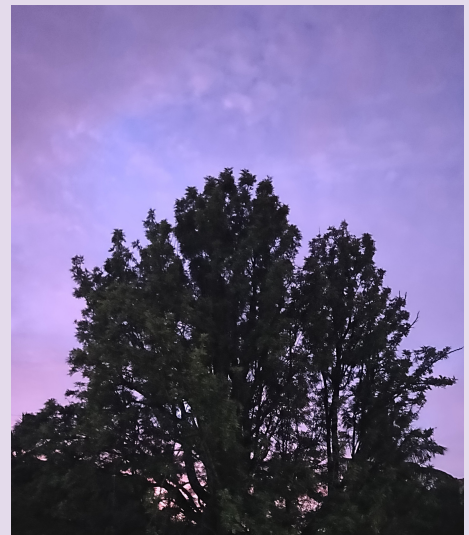
PG 2020 - 2022 BATCH

STUDENTS' CORNER



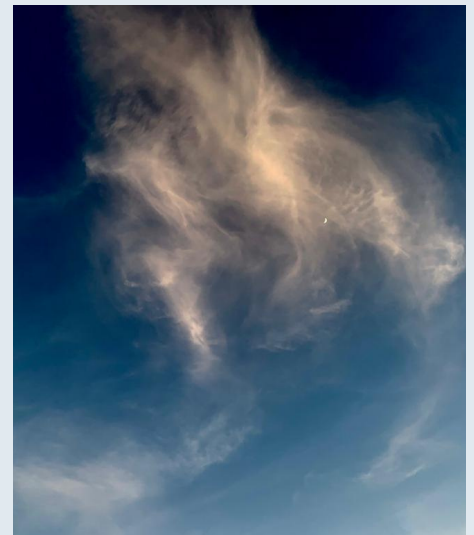
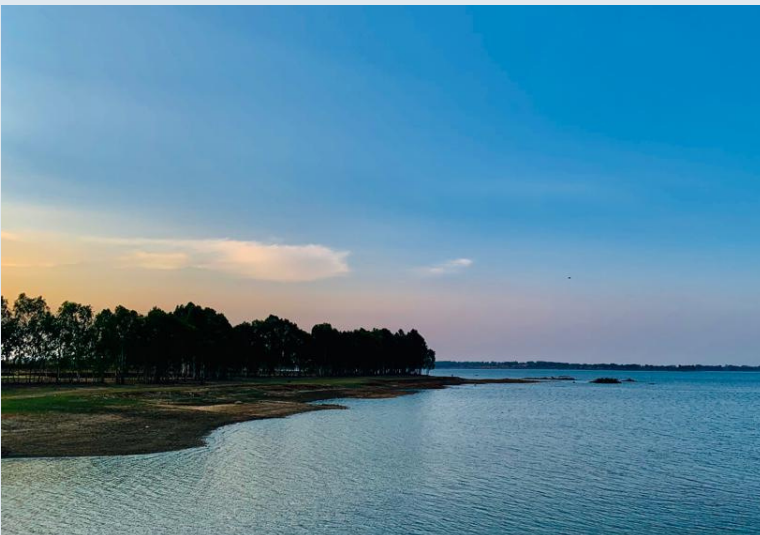
~ submitted by Adithi K. S.
(6th semester)

STUDENTS' CORNER



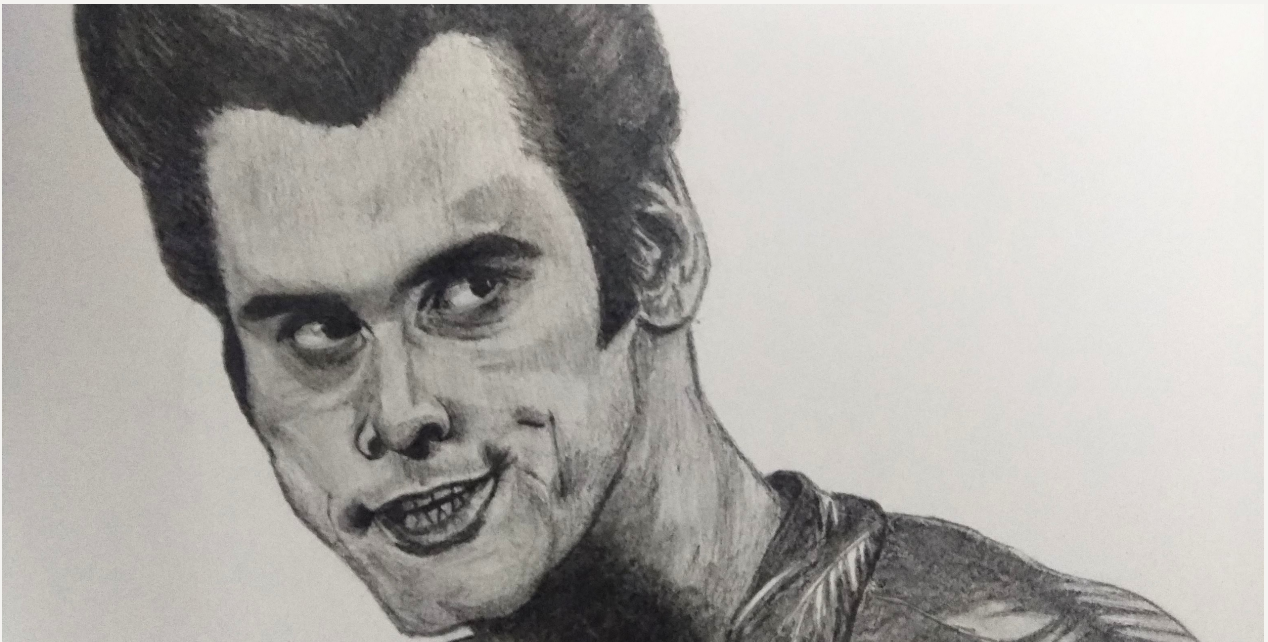
~ submitted by Vaishnavi Rangaraj
(6th semester)

STUDENTS' CORNER



~ submitted by S. Unnathi Annapurna
(6th semester)

STUDENTS' CORNER



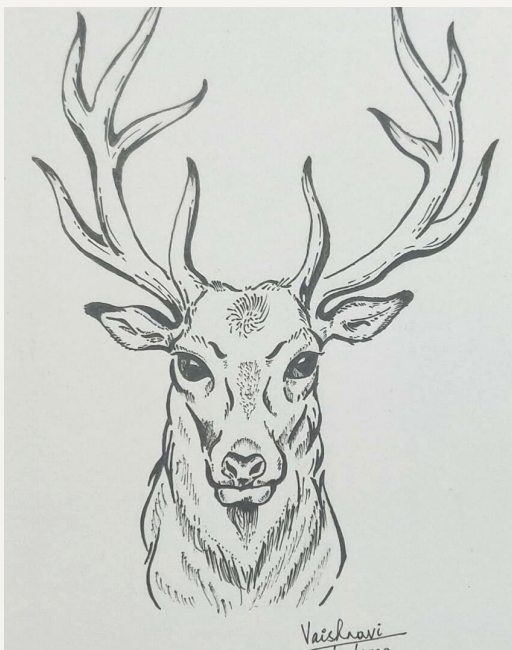
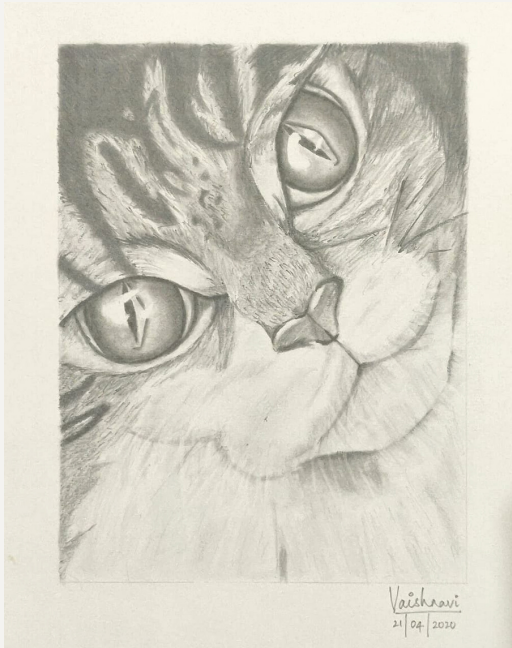
~ submitted by Yashaswini K. P
(6th semester)

STUDENTS' CORNER



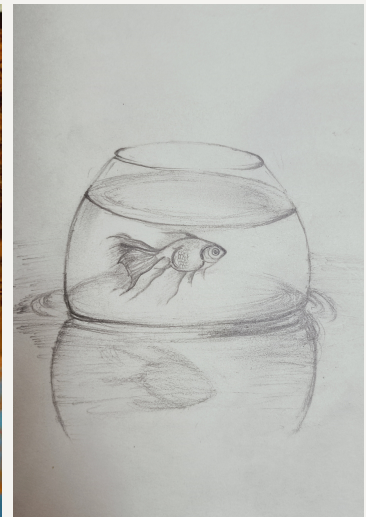
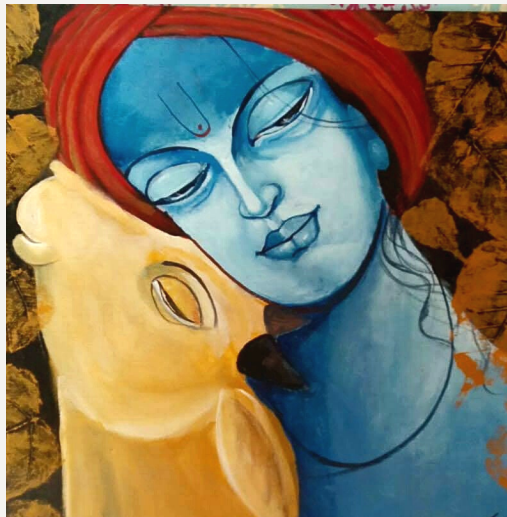
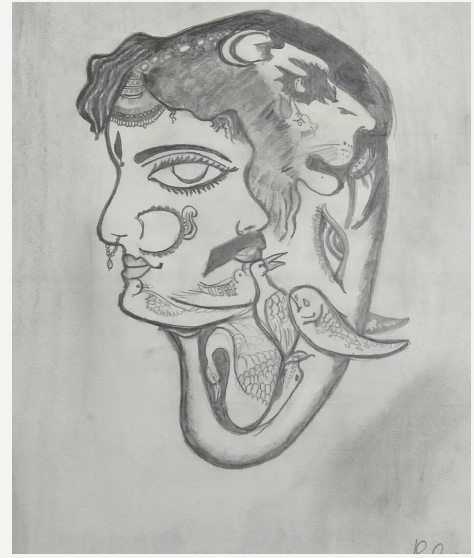
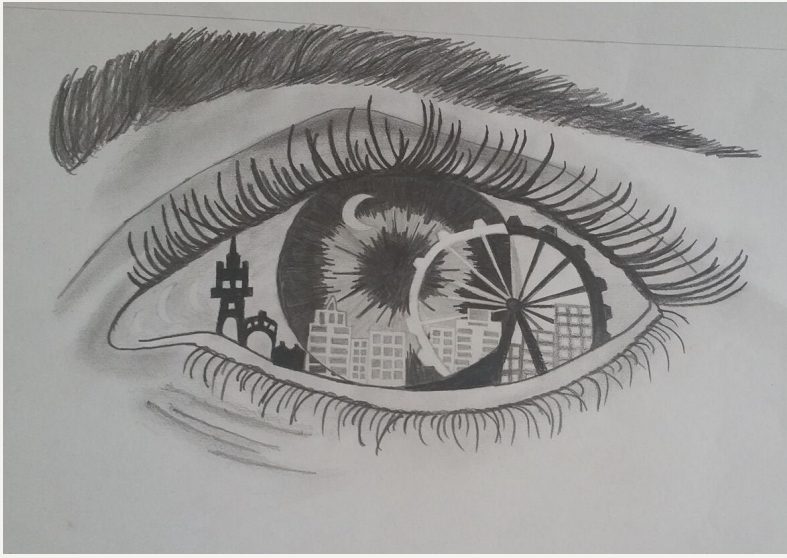
~ submitted by Yogeswarr S.
(6th semester)

STUDENTS' CORNER



~ submitted by Vaishnavi Rangaraj
(6th semester)

STUDENTS' CORNER



~ submitted by

Left to right (First row): Prerana A.M. ; Shreya S. Makam

Left to right (Second row) : Likhitha S ; Jiya Tomar; Anusha K. B.

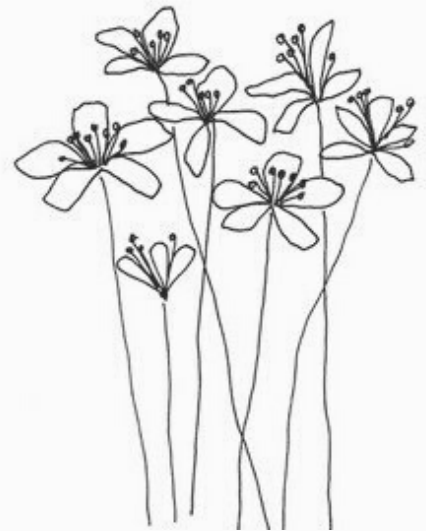
फूल

एक फूल जो था अकेला,
फिर भी लाता खुशियों का मेला ।
सुगंध उसकी बड़ी लुभावनी,
मानो सुनाती सौ कहानी।

देखने में था इतना सुंदर,
आँखों को देता एक मोहक मंज़र ।
आता जब हवाओं में पतझड़,
जाते उसके हर पत्ते बिखर,
वो फूल बेचारा, हो जाता था ठूँठ,
पर तब भी रखता अपने जड़ों से रिश्ता अटूट ।

करता धैर्य और उम्मीद से बसंत का इंतजार,
जो लाता पुनः पौधे पर फूल का बहार।
सिखा जाता सबको यह पाठ,
अपने ज़मीन और रिश्तों के साथ सदैव रखो मज़बूत
गांठ।
तबी तुम उन्चे उठ सकते हैं,
जीवन के तूफानों से जीत सकते हैं।

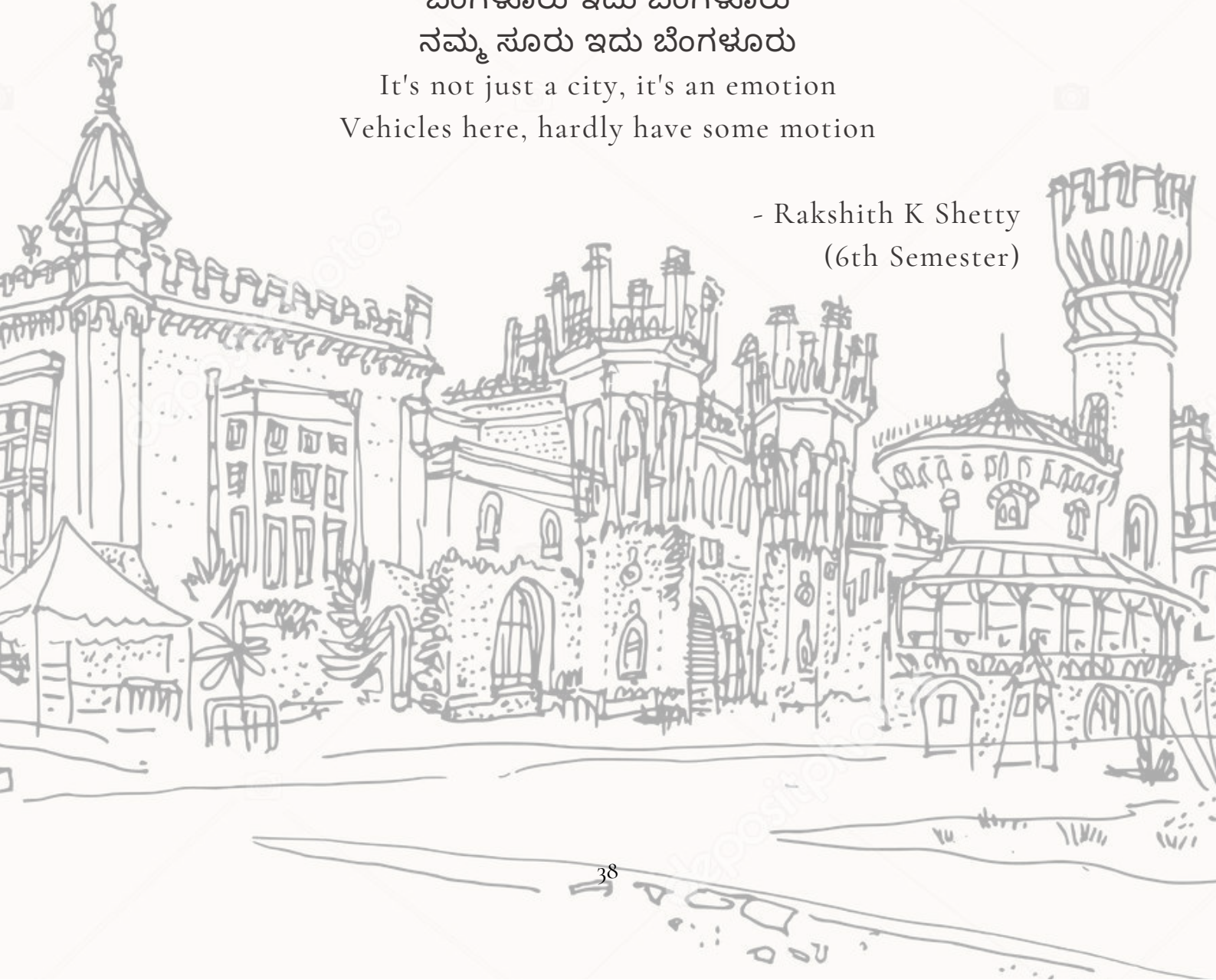
~जिया तोमर



ಬೆಂಗಳೂರು ಇದು ಬೆಂಗಳೂರು
ನಮ್ಮ ಸೂರು ಇದು ಬೆಂಗಳೂರು
ಮಸಾಲೆ ದೋಸೆಯ ರುಚಿಯ ನೋಡುತ
ಫಿಲ್ಟರ್ ಕಾಫಿಯ ಪರಿಮಳ ಹೀರುತ
ಮೆಟ್ಟಿಲೋ ರೈಲಿ ವೇಗದಿ ಸಾಗುತ
ನಮ್ಮ ಊರಿದು, ಹೇಳು ನೀ ಹಿಗ್ಗುತ!
ಈ ಟ್ರಾಫಿಕ್ ಜಾಮ್ ತಲೆಯ ಬಿಸಿ ಮಾಡಿದೆ
ಗ್ರೀನ್ ಸಿಟಿಯ ಗ್ರೀನರಿ ಕಾಣೆ ಆಗಿದೆ
Road ಅಲಿ swimming poolಗಳು ಕಂಡಿವೆ
ಆದರೂ ನಮ್ಮ ಬೆಂಗಳೂರೇ ಚೆನ್ನ ಎನ್ನುವೆ!
BMTC ಬಸ್ಸುಗಳ ಶತಮಾನೋತ್ಸವ
ಕನ್ನಡ ನುಡಿಗಾಗಿ ರಾಜ್ಯೋತ್ಸವ
Ola ಒಲ್ಡು Bouncer ಗೋಲ್ಡು
ಹಂಗೋ ಹಿಂಗೋ ಮನೆಗೆ ಓಡು
ಬೆಂಗಳೂರು ಇದು ಬೆಂಗಳೂರು
ನಮ್ಮ ಸೂರು ಇದು ಬೆಂಗಳೂರು

It's not just a city, it's an emotion
Vehicles here, hardly have some motion

- Rakshith K Shetty
(6th Semester)



SINGULARITY



“We study everything there is in the universe now, while the light left them a million or so years back. We are practically looking at the snapshot of the past in the present”. What do we hope to learn from all our explorations? Deep down, we already know the answers.

Carl Sagan once said “We're made of star-stuff. We are a way for the cosmos to know itself.” The realization that we are a part of it all, can be truly empowering when we see the creative energy at our disposition. Looking for a way to harness this energy, different fields of engineering took birth. It almost felt like the cosmos wanted us to take this path. That brings us to the question: Are we on the right path now? Do we really value the importance of it all? In essence, we do not really know what is happening in the universe out there beyond our galaxy. Even within, there are so many possibilities and with each passing instance of time the complexity of trying to predict the uncertain grows. It is not that the chaos scares us, it is more about the fact that we want to have a good grasp on control. We try and seek out the underlying order in everything. We expected the experiments to yield results as desired, although we are now getting to know our part in it all.

One day, we will unify all the forces of nature and be able to describe the universe in a single theory. Will that be when we bring down our labels of separation and begin to understand it in a whole new light? “The journey to find the absolute truth might lead us inward or onward to another journey”. When we start to build our dreams into reality, amazing imaginative theories can just be the way forward, because so much of our current development is based on such theoretical work. “Imagination will often carry us to worlds that never were. But without it, we go nowhere,” said Carl Sagan.

The source of knowledge is there for everyone to make use of. The source of it all might seem elusive to few. Come to think of it, we all study; but do we really learn, we talk; do we really listen, we read, but do not write a lot, we think there is time; who knows to define it! Let us all take this opportunity to owe another chance: read again, and fall in love with the subjects that once set us free from what was going on around us. Then you read some more because those who came before us had a story to tell. Just beyond that horizon, which we all wish to witness from a peak, was a ‘singularity’ of origin, that was where we all once were, that is our hope for making progress that can matter.

- Atheeth S
[2015-2017]

ನದಿಯಾಗಿ ಹರಿಯುವ ನೀ ರಿಗೇ ನು ತಿಳಿದಿದೆ
ನನ್ನ ಪಯಣ ಎಲ್ಲಿಗೆಂದು
ಇಚ್ಛಿಸಿದಂತೆ ಬೀ ಸುವ ಗಾಳಿಗೇ ನು ತಿಳಿದಿದೆ
ನನ್ನ ದಿಕ್ಕು ಯಾವುದೆಂದು
ಸುಯ್ಯನೆ ಬೀ ಳುವ ಮಳೆಗೇ ನು ತಿಳಿದಿದೆ
ನನ್ನ ಮನದ ತಾಪವೇ ನೆಂದು
ಗಿಡದಲ್ಲಿ ಅರಳುವ ಹೂವಿಗೇ ನು ತಿಳಿದಿದೆ
ನನ್ನ ಸಮರ್ಪಣೆ ಯಾರಿಗೊಂದು
ಮುಗಿಲಲಿ ಜಾರುವ ನಕ್ಷತ್ರಕ್ಕೆ ೇನು ತಿಳಿದಿದೆ
ನನ್ನ ಕನಸ್ಸು ಏನೆಂದು
ಬಿಡದೆ ಸುಡುವ ಸೂರ್ಯ ನಿಗೇ ನು ತಿಳಿದಿದೆ
ಮನಸ್ಸಿನ ಭಾವನೆಗಳೇ ನೆಂದು

ಪ್ರತಿ ದಿನ ಅಚ್ಚರಿ ಕಾದಿರುವ
ಈ ಬದುಕಿಗೇ ನು ತಿಳಿದಿದೆ
ನನ್ನ ಭವಿಷ್ಯ ಏನೆಂದು

- Rakshith K. Shetty





FROM THE EDITORS

Phew! What an incredible year it has been!

This year has been full of crests and troughs like a sine wave, from getting acclimated to offline lectures and examinations again, to experiencing the lockdown due to the COVID-19 Omicron variant, to celebrating our college's UTSAVA for the first time in three years, and to achieving many more. With an academic year like this, it is only right that our annual departmental magazine manages to capture all our achievements and emotions for posterity.

With great expectations comes great responsibility and Hani and I had the pleasure of shouldering this responsibility to design and deliver the best magazine to our dear department fellows. While we cannot say that it was an easy process, what with collecting content and quite literally becoming that annoying reminder app on your phones only for you to ignore, we cannot say we didn't have fun picking colours, layouts, and fonts. Ah! The joy!

Designing the magazine has also reminded us that, while it is not yet our turn to graduate, it is also not as far away as we believe. So, to all of the graduating classes, we wish you the best of success in the next part of your lives and hope that this magazine has captured priceless moments for you to remember.

That's enough chatter, I believe.

Here's to a fantastic and fulfilling year!

Signing off,
Your editors

Vaishnavi Rangaraj

Ume Hani Jawad

