



RAMAIAH
Institute of Technology



VolSE

Magazine

2019-2020

**AN INSIGHT INTO THE
DEPARTMENT OF
INFORMATION SCIENCE
AND ENGINEERING**



Dr.Vijaya Kumar
B.P

PROFESSOR & HEAD,

Dept.

of Information Science and

Engineering

Ramaiah Institute

Of Technology

(Autonomous,

Affiliated to VTU,

Approved by AICTE)

Bangalore - 560054,

Karnataka,

India.

I whole heartedly congratulate the VoISE students' community and faculty for achieving the targets set forth based on the vision and mission of the department along with the societal community outreach activities shown implicitly in the academics.

Hope this experience and achievements will provide a strong confidence with clarity to face the challenges across the world

professionally in the areas of Information Technology.

I am happy to disseminate the aggregated achievements and activities towards the knowledge enhancement that pave a path for the Information society.

HEAD OF THE DEPARTMENT

VoISE FACULTY COORDINATORS

"VoISE is an opportunity for students and faculty to use this common forum to exchange their innovative idea. Students can develop their multidimensional skills by participating in the departmental activities.

"Leadership is an action. It is not a position." In this context, our students are in action as volunteers to this forum and bringing innovation every year in the form of workshops, seminars, technical talks etc for the growth of overall personality development.

We wish all the students to utilize the context of this forum to build a successful career and spread the leadership and entrepreneurship awareness among themselves and juniors.."

ABOUT VoISE

VoISE is a student forum of the department of Information Science & Engineering which was established in the year 2000. It majorly comprises of the second and third year students who coordinate with faculty and department to carry out various activities and events in our college. VoISE provides an opportunity to the students to improve their leadership skills, and allows them to work as a team which in turn polishes their interpersonal skills and enables the development of their multidimensional skills. VoISE organizes events in association with IEE CIS and Google DSC club. Every year VoISE also releases the department magazine which provides an insight of the department activities and achievements.

VISION AND MISSION OF THE INSTITUTION

VISION

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

MISSION

M S Ramaiah Institute of Technology shall meet the global socio-economic needs through

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

VISION AND MISSION OF THE DEPARTMENT

VISION

To evolve as an outstanding education and research center of Information Technology to create high quality Engineering Professionals for the betterment of Society.

MISSION

Department of Information Science and Engineering shall create high quality IT Engineering Professionals for the betterment of society by:

- Providing education through an ever improving curriculum and effective pedagogy techniques.
- Encouraging extra and co-curricular activities to develop their overall personality along with technical skills.
- Collaborating with industry and academia for strengthening research, innovation and entrepreneurship ecosystem.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

PEO1: Become competent information technology professionals with continuous progressin career orlearning.

PEO2: Productively engage with society by practicing research of entrepreneurship

PEO3: Function effectively as professionalsin a team environment orindividually.

PROGRAM OUTCOMES

Engineering Graduates will be able to:

- Engineering knowledge: Apply the knowledge of mathematics,science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- Problem analysis: Identity, formulate,review research literature, and analyze complex engineering problemsreaching substantiated conclusions using first principles of mathematics, naturalsciences, and engineering sciences.
- Design/development ofsolutions: Design solutionsfor complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and the cultural, societal, and environmental considerations.
- Conduct investigations of complex problems: Use research-based knowledge and research methodsincluding design of experiments, analysis, and interpretation of data, and synthesis of the information to provide valid conclusions

- Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- The engineer and society: Apply reason informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

"Science is about knowing,
Engineering is about doing"

- Henry Petroski

EVENTS

OpenStack Upstream Training

OpenStack Upstream Training was held on 18th October, 2019 - Sponsored by AICTE under Margadarshana Scheme. It is a program to share knowledge about the different ways of contributing to OpenStack like providing new features, writing documentation, participating in working groups, and so forth. The training is focusing on hands-on practice like the students can use a prepared development environment to learn how to test, prepare and upload new code snippets or documentation for review.



Faculty Development Programme on Digital Forensics

13th Jan – 18th Jan, 2020

In association with Department of Computer Applications, the department conducted Faculty Development Programme on Digital Forensics from 13th Jan – 18th Jan, 2020. This FDP offered practical illustrations that how evidence can be captured from Computers, Laptops, Mobile Phones and other Electronic Gadgets. It also focused on awareness and knowledge of the nature of computer record evidence in respect of the substantial legal and procedural issues in legal proceedings. The FDP was spanned across five days with in depth lectures from a panel of experienced professionals from industry and academia. The sessions were planned to cover the Computer Forensic Process, Cyber Law and Jurisdictional Issue, Indian IT Acts and latest Amendments and Acceptance of Digital Data and Computer Reports as evidence in court. The FDP also included

comprehensive hands-on training in the form of extended lab sessions conducted on all five days.



Tech talk on Smart Cities and Project opportunities

- 5th February 2020
- Department in association with Gaia Industry has organized tech talk on Smart Cities and project opportunities on 5th February, 2020. Mr. Bipin Pradeep Kumar, Product and Technology manager and Co-founder of Gaia expounded the vast field of opportunities in Smart Cities Project and offered internship to enthusiastic students who are good at programming and design skills.

Young leaders Programme

- 28th February, 2020
- Department in association with Indian School of Business arranged a session on Young leaders Programme on 28th Feb 2020. Mr. Yashwant, Sr. Manager Admissions Indian School of Business was the guest of honour. Young Leaders Programme is an initiative of Indian School of Business (ISB) to introduce itself to the students of our institution. The talk was about significance of management studies and how empowering young minds can propel them forward in their career. It was also an introduction to them regarding the benefits of joining ISB to pursue management education.



2020/2/28 11:53

IEEE CIS Student Chapter Membership Drive

- 6th Feb, 2020
- Department has conducted IEEE CIS Student Chapter Membership Drive on 6th Feb, 2020. A tech talk was organized as part of the event. Mr. Nishanth from tech Machinery talked about app development and opportunities as internees in the organization. Hundreds of students participated in the membership drive.



IOS App Development Orientation

- 20th September, 2019
- Apple Developers Group of RIT conducted an orientation program to kick start iOS related activities on 20th September, 2019. ADG received an overwhelming response for their activities. Around 300 plus students registered for various activities and learning programmes to be conducted throughout the year. An upgraded Apple Lab was also inaugurated as part of the event.



Technical Talk on Software Safety & Security Testing by LDRA

- 13th September, 2019
- Department in association with LDRA, Bangalore conducted tech-talk on LDRA tools. The lecture was given by Mr. Amit Kumar, Senior Sales Manager, LDRA, Bengaluru, India. The following topics were covered in the talk: Coding Rules Checking & Software Quality Analysis, Code Coverage Analysis, Unit Testing with Automatic Test Case Generation, Embedded Software Testing for Safety and Security Standards.



MOU Initiation with DigitalEd

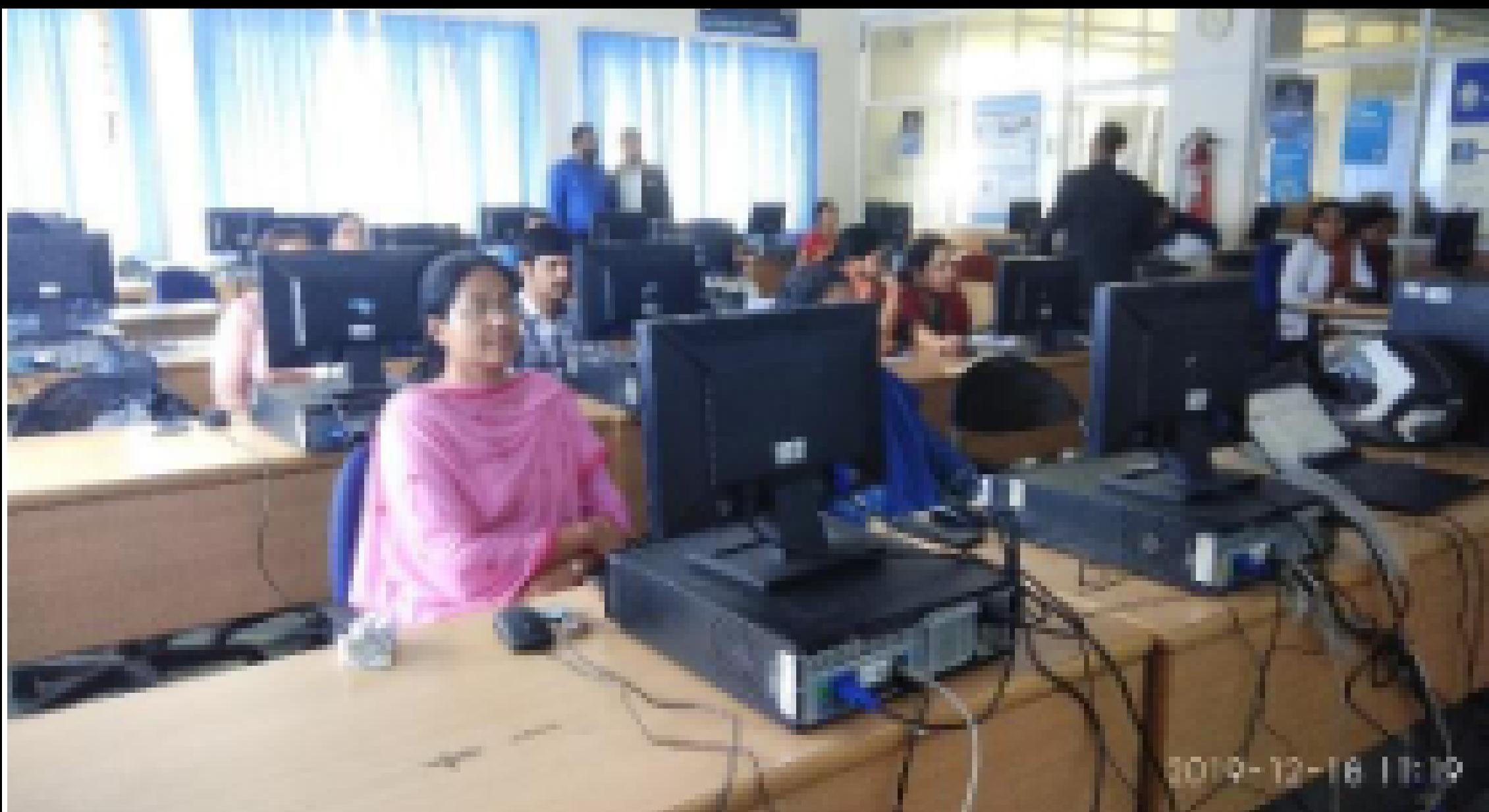
Möbius Courseware and Assessment are the industry-leading e-learning platform that provides interactive courses and assessment that embody digital learning best practices. It is designed for STEM i.e., Möbius Courseware is the only comprehensive online course platform designed to meet the specialized requirements of science, technology, engineering and mathematics. With Möbius Courseware, you can create, maintain, and deploy higher quality digital assets than you could using other tools, and do it in less time. Möbius Courseware provides powerful analytics that enable you to measure both student understanding and the effectiveness of your learning materials. Hon. Vice-Chairman, GEF and Director, RIT Sri. Seetharam interacting and guiding on how effectively the software could be implemented in the Institute with DigitalEd team Mr. Andrew Rourke, Mr. Avik Dutta, Mr. Chris Banks, Prof. Stefani Winkler, Dr. B P Vijaya Kumar, HOD, ISE is also present on the occasion.



WORKSHOPS

Mobius software

1. 18th Dec, 2019
2. Department in association with DigitalEd organized a follow up workshop on Mobius software. It was conducted on 18th Dec, 2019. Technical team from DigitalEd guided selected faculty of RIT in designing courseware using Mobius Courseware platform.



Edge Intelligence and Computing

20th to 25th January 2020

In association with IEEE Computational Intelligence Society, Bangalore Section, Department conducted a weeklong workshop from 20th to 25th Jan 2020 on Edge Intelligence and Computing. A panel on discussion was also organized as part of workshop. Eminent educationists and Industrialists were part of events where future of edge intelligence was discussed and questions from audience were answered. Topics as wide as machine learning, deep learning, IoT, data consistency, security in edge intelligence were part of the workshop.

Tech Talk & Panel Discussion with Eminent Educationist and Industrialists

Edge Intelligence and Computing

09:30 AM Onwards

22nd January 2020

Ramaiah Institute of Technology, Bangalore

LHC Seminar Hall 2

Panelists:

- Prof. Yogesh Simhan** - Professor, IISe Panel Member
- Vijaya Kumar Ivaturi** - Co-founder and CTO, Crayon Data Panel Member
- Dr. Nanda Kumar B S** - Assoc. Prof., Ramaiah Medical College Panel Member
- Chethan Kumar S** - CEO-Aikaan Panel Member
- Sirish Balaji** - Vice President, Digital Technology Panel Member
- Sriram Pallela** - Co-Founder, Green Sense Works Panel Member
- Dr. Vijaya Kumar B I** - Prof. and Head, ISE IIT Moderator

Network Data Analytics: A Hands-On Approach for Application Development

1st to 5th July, 2019

The department under AICTE Margadarshi scheme conducted one week workshop on Network Data Analytics. This workshop aims at bringing the students, professionals, academics and research scholars together to share their knowledge for achieving focused development and understand broad opportunities of data analytics and apply it in practice. Topics covered included Introduction to Data Analytics (with examples of classification, regression and clustering problems), Emerging topics in Data analytics, Hadoop ecosystem tools, like: Apache Hadoop, Apache Spark, Apache Storm, Apache Hive and Apache HBase, Map reduce with Hadoop, Machine learning methods: Regression, Clustering, Decision trees, Random forest and Data Visualization using Python. Speakers are from organization like IBM, Robert Bosch, Julia Computing, Graphene services and Aikaan Technologies.

Faculty Development Programme on Role of Blockchain and Artificial Intelligence in Applications of Cyber Security

22nd to 26th July, 2019

The department in association with CSE and MCA conducted a week-long FDP on Blockchain and AI Application during July 2019. This workshop aimed at exposing the participants to the principles of information security, application of AI and Blockchain in Cyber Security and a set of tools that is necessary to understand those principles. The workshop was consisting of hands-on sessions on the use of prominent open-source security tools. Participants were guided through these tools' usage and utility.



Faculty Development Programme on Current Trends in Service Oriented Architecture

8th to 12th July, 2019

The Department in association with dept. of MCA conducted one week FDP on Service Oriented Architecture. The main focus of this workshop is to educate the participants about the latest technologies and bring them up to speed so that they do not lag behind. Keeping this in view, the Programme is designed to achieve the following objectives: To understand the architecture of Microservices and container-based applications, to develop and deploy Microservices with KUBERNETES, to know the various technologies for Microservices related to frontend, backend, security and to get a complete Hands-on Mean Stack Development. Resource persons were technical experts from Google, IBM, SAP, MicroFocus and RIT Faculty.



Faculty Development Programme on Predictive Analytics with Amazon Web Services

15th to 20th July, 2019

Department in association with dept. of MCA conducted one week FDP on Predictive Analytics with Amazon Web Services. Topics covered include Fundamentals of R and Python, Hands on sessions with R and Python, Predictive analytics Process and Techniques, Introduction to AWS, Machine Learning with AWS, Cloud Computing with AWS, Predictive Analytics with AWS and Big data on AWS. Resource persons were Technical Experts from AWS-Educate, RIT, IIIT-B, Icris Solutions Pvt. Ltd.



GOOGLE DSC

1. ORIENTATION

The Orientation began with the wisdom of Mr.Vijaya Kumar BP (HODDept of ISE) where he explained the various activities under DSC in the upcoming Academic year and importance of projects on society.

The knowledge on the current trends in corporate sector was explained and 'Why join DSC?' was briefed by Nimish. Finally DSC Lead Piyush Mehta took over the stage with the year plan, workshops and projects under DSC. He also brainstormed students with tech questions.

V R Kartik and Hemant Joshi spoke about what workshops they'll be facilitating i.e, Explore ML and Applied CS. The Orientation was concluded by Rohit Nagraj with a Q/A session.



2. EXPLORE ML (Workshop-1)

VR Karthik, The google facilitator for Machine Learning headed this workshop named Explore ML with an intent to make engineering students equipped with the latest technology and skills to help them serve the world better.

The workshop began at the high note with the basics of Python3 taught by Gaurav specifically to help them understand machine learning concepts more efficiently. The basics of Machine Learning ie Data Cleaning, data pre processing, Data visualisation and basic ML algorithms using scikit-learn was taught by VR Kartik. The hands-on session with a mini model was continued by Rohit Nagraj.



3. APPLIED CS WITH JAVA ANDROID



The workshop was conducted by Hemant Joshi. It started at 11:00 AM. The workshop had only third year students. The workshop started with Android Studio IDE installation and Android UI with XML. The Concepts of Java were revised including Hash maps, Anagrams were taught using Android UI.

4. ZEROTH MEET

The Workshop was started with a speech of Dr.Mydhili K. Nair with a brief introduction about Projects, Mentors, Rules of Projects , Xplore ML.

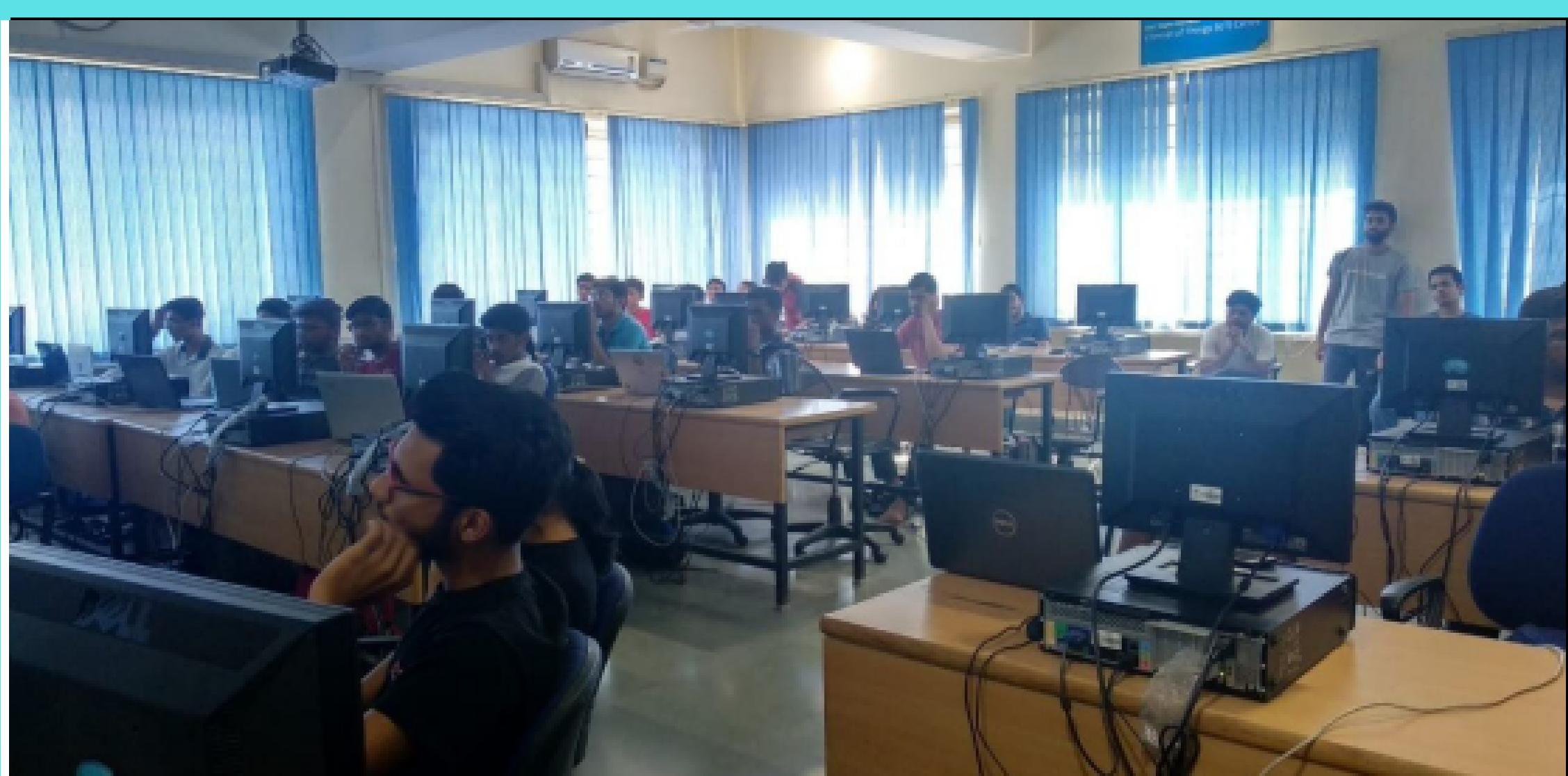
The meet was continued by Piyush Mehta explaining the importance of team work and importance of Agile development. He explained about Hacktoberfest where projects will be submitted (open source contribution) and how it impacts to enhance the programming skills. Students were then divided into teams and assigned project themes and mentors.



5.Git and GITHUB Workshop

Git is a version control client and is widely used in almost every industry. Keeping this in mind, DSC- RIT brought to the students an interactive workshop on the essentials of Git and Github, the most widely used clients.

The workshop was presided over by the DSC lead Piyush Mehta who walked the students through the basics of git for windows and linux operating systems alike. The git client used locally was git-bash for most, the basic commands and functionality of which was explained and taught during the course of the 3 hour workshop.



6. EXPLORE ML (Workshop-2)

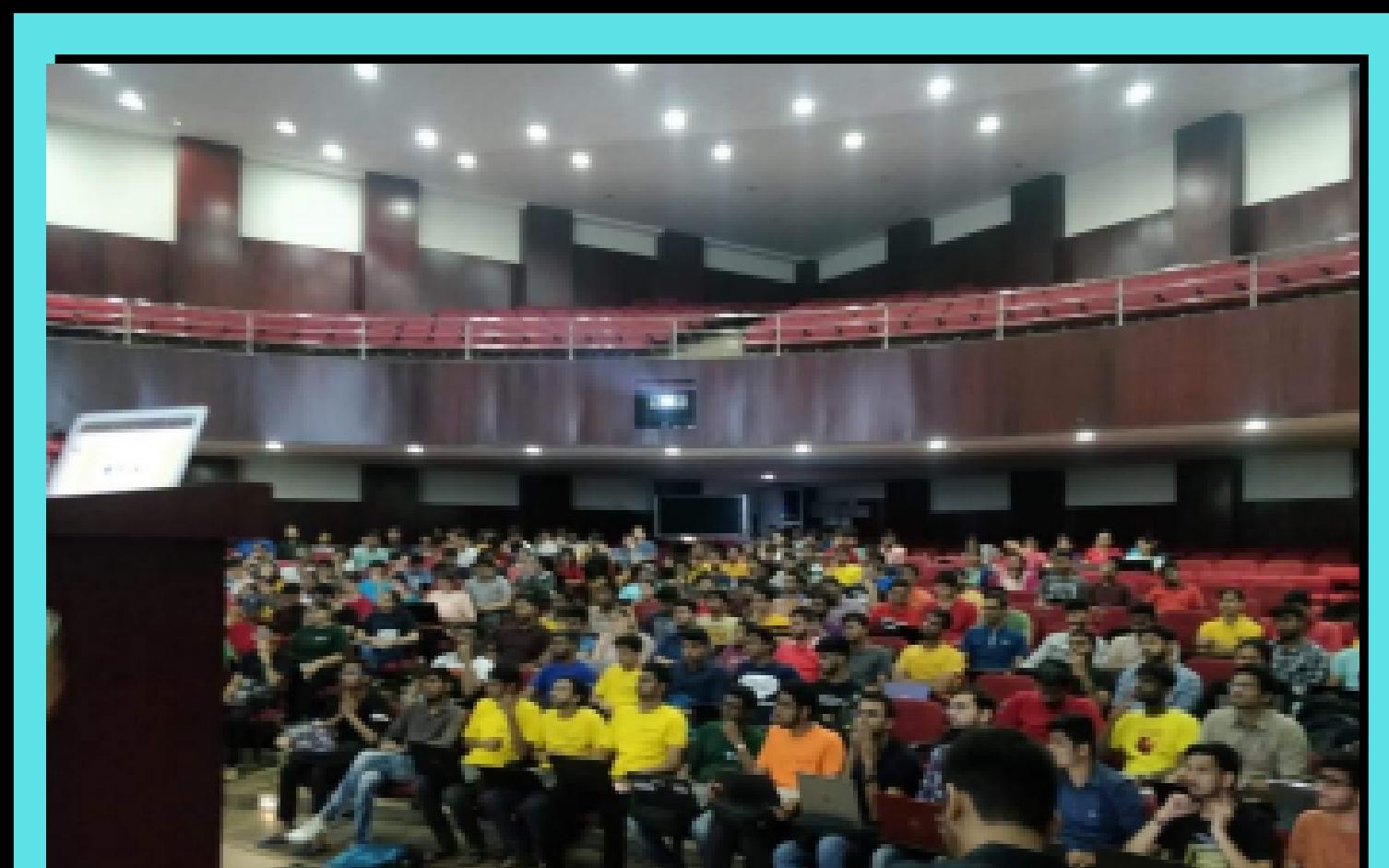


VR Karthik, the Google facilitator for Explore ML headed this workshop. The workshop started with a basic ML introduction by VR Kartik. different aspects of supervised and unsupervised data were taught. K-mean cluster and KNN cluster were taught next.

K-means is an unsupervised learning algorithm used for clustering problem whereas KNN is a supervised learning algorithm used for classification and regression problem; K-means is an unsupervised learning algorithm used for clustering problem whereas KNN is a supervised learning algorithm used for classification and regression problem.

7. Google Cloud Study Jam

Every Semester DSC-RIT brings to the campus an awe-inspiring and valuable opportunity of receiving hands on experience with the Google Cloud Platform, colloquially abbreviated as the GCP by the tech world, in association with Google themselves.



With the help of google-qwiklabs, absolutely free access to the Google Cloud Platform is given to the students participating in the session for a trial period scoping from 1 to 3 months. On completion of courses ,which qwiklabs has wittingly called quests , students are awarded badges with which they can decorate their professional profiles on various job-hunting platforms.

This Odd Semester, it was no different. The members of the DSC took the dias and engaged the students in an entertaining and knowledgeable four hours of a hands-on workshop. It proceeded VR Karthik, Meer and Piyush Mehta took turns and explained different levels of the very basic "GCP essential" Quest. The course structure was intuitive and the students didn't take more than one attempt to get things right.

8.EXPLORER ML (Workshop-3)

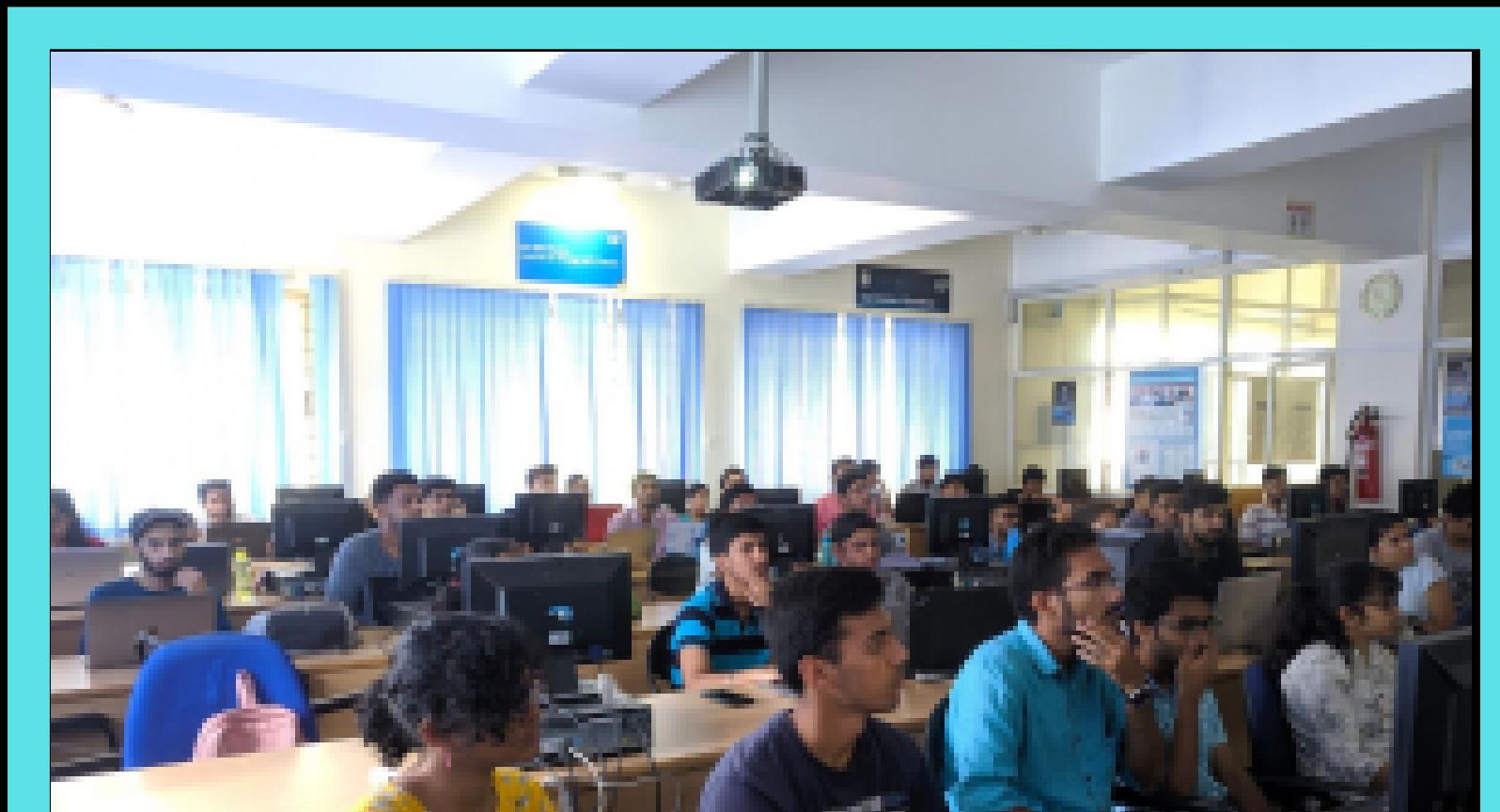


The third session of Explore ML started on a high note with almost 80 attendees. In this session the young engineers were taken to more depth in concept understanding and ML algorithms together with the mathematics and calculations behind it. VR Karthik introduced the students with Deep Learning and its basics were covered with enthusiasm, that was seen on the faces of both instructor and the learners.

9.EXPLORER ML (Workshop-4)

The final session on Explore ML began with liveliness and vivacity.

Topics like Deep learning and transfer learning were covered in the session by VR Kartik. Previously started Deep learning was tutored in depth accompanied by the maths associated with it. Basics of transfer learning were made familiar.



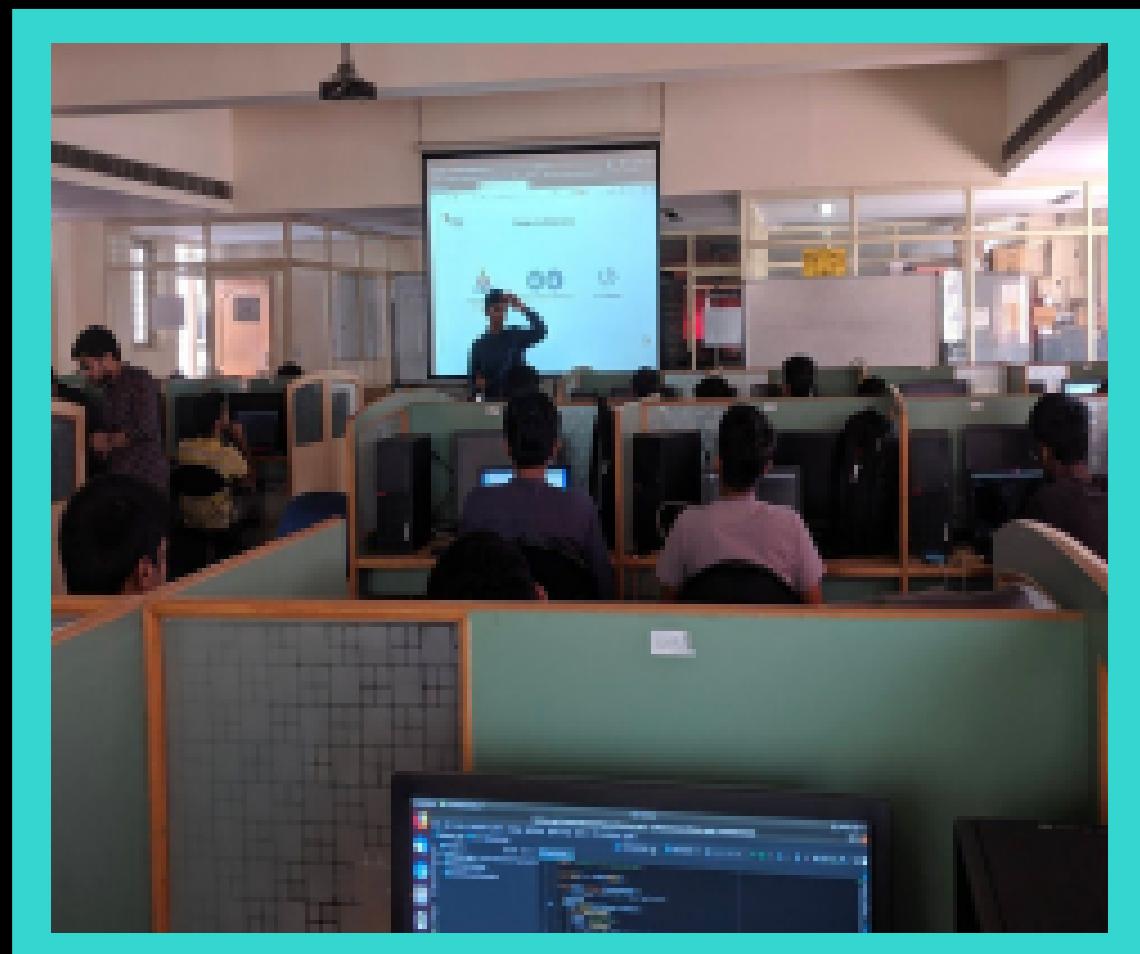
Rohit Nagraj engaged in hands-on sessions on Deep learning and transfer learning. Learners responded positively to it with full concentration and interest. The facilitators were also asked many doubts but they made it sure that all those queries are addressed and the crowd is free of chaos. The specific set of skills acquired by every individual in this particular workshop shall go a long way in his or her career and a bright addition to their abilities. The session was brought to an end with a heavy heart but smiling faces and relieved minds of learning something new.

10.FLUTTER FROM SCRATCH (Workshop-1)

Raghav Maheshwari began the workshop with a brief introduction to FLUTTER. Followed by the installation of Flutter SDK, he highlighted the advantages associated with it and how easily it could be handled by a layman too. Raghav alongwith Ayush Ujjwal taught the basics of Dart and DartPad specifically to help students understand handling Flutter concepts more efficiently. Both of them made sure that the aspects regarding Dart are transparent.



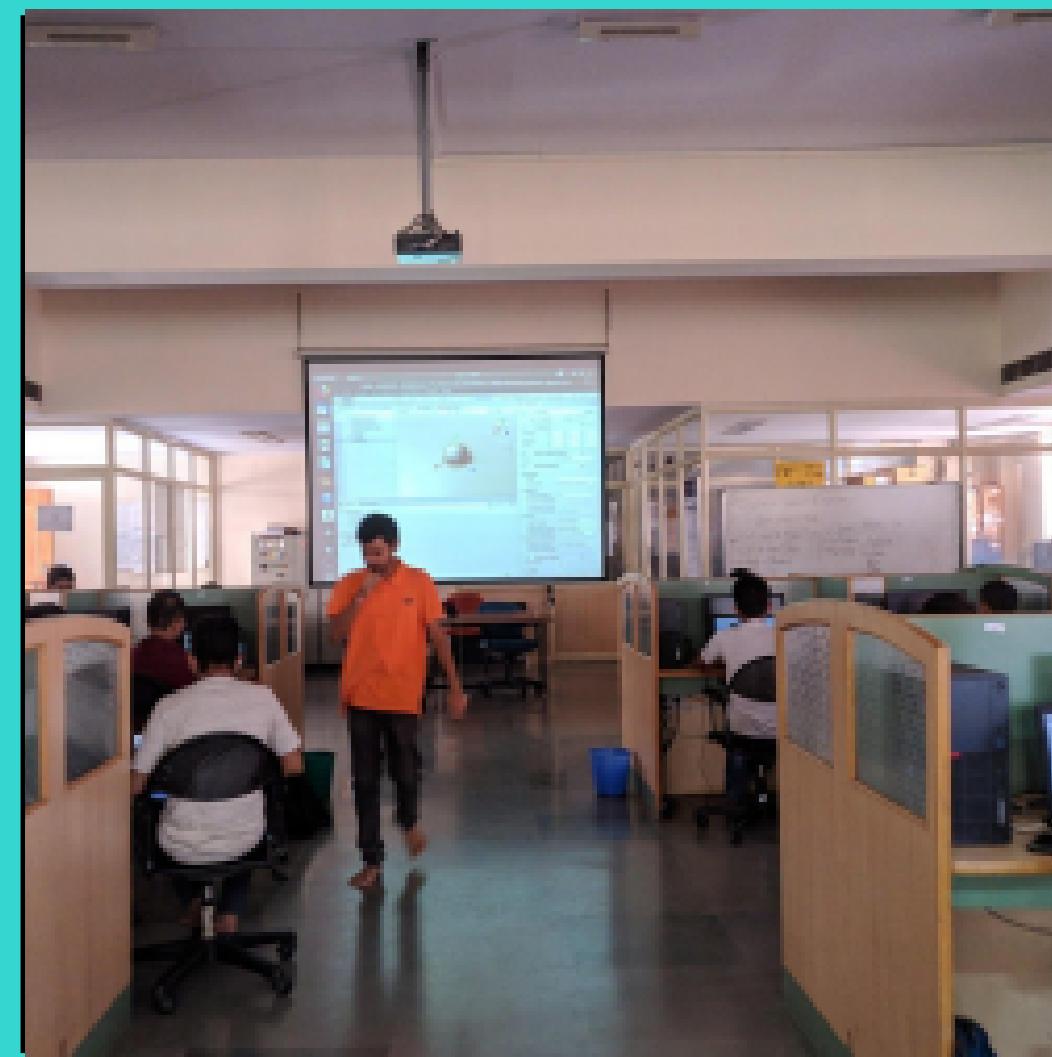
11.FLUTTER FROM SCRATCH (Workshop-2)



Raghav Maheshwari continued the second session of workshop after reviewing previous session's topics. He highlighted the advantages associated with Flutter and how easily it could be handled with widgets. He clarified the unsolved doubts specifically to help students understand handling Flutter concepts more efficiently. As the fundamentals were previously done, the session began with hands-on. Students were encouraged to use various widgets to make another application that enlists the names of all the movies alongwith posters which contain the specified keyword in the code. While doing this the concept of API's were covered making students familiar with its use and how to derive them in the application. Raghav and Nimish Bonagle ensured that the code is addressed to students line-by-line to be precise about understanding the app.

12.GAME DEV WORKSHOP

Rishabh Bhatt, headed this workshop named 'Game Dev Workshop' with an intent to make engineering students equipped with the latest technology and skills to develop games using 'UNITY' along with hands-on experience. The workshop began at the high note with the installation of the software. The basic concepts of game development were brushed, thereby boosting the confidence of students. Students were encouraged to develop a primitive game using Unity and C#. The hands-on session was continued by Rishab Bhatt and Rohit Nagraj..



13.PYTHON WORKSHOP



Under Tools and Tech 2020, two sessions were held dated above, headed by Gaurav Kashyap along with Kushal Garg, Shivansh and Nimish Bongale. The two sessions focussed on introducing students to python that could be the basis for many concepts like web scraping, python automation, etc. Students were helped to install Python 3.0 in their work stations., after which topics like data types, lists, dictionaries, in-built functions, etc were taught along with hands-on sessions facilitated by all the volunteers of DSC-RIT.

FACULTY PUBLICATIONS

- Pruthvi V S, Naresh E, Vijaya Kumar B P, Novel Tool for Analyzing Agriculture Related Documents, international journal of scientific & technology research, Vol.8, Issue 10, October-2019 .
- Naresh, E. ; Vijaya Kumar, B. P. ; Niranjanamurthy, M. ; Nigam, Bhawna, Challenges and Issues in Test Process Management, Journal of Computational and Theoretical Nanoscience, 16(9), September 2019.
- Ravi C Bhaddurgatte1, Vijaya Kumar B P, Kusuma S M, A Cross layer QoS Framework for Heterogeneous IoT environment, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, , December, 2019, Volume-9 Issue-2, Dec 2019.
- Chaithra, Dr.G.M. Lingaraju and Dr.S. Jagannatha, Review of Web Page Classification and Web Content Mining, Journal of Adv Research in Dynamical & Control Systems, Volume-11, Issue-10, Sept 2019.
- Srinidhi H, Siddesh G M, K G Srinivasa, "A Multi-Layered framework for Internet of Everything (IoE) via Wireless Communication and Distributed Computing in Industry 4.0", Recent Patents on Engineering, Bentham Science Publishers, Vol.14, Issue.04, 2020.
- S. R. Mani Sekhar, G. M. Siddesh, Anjaneya Tiwari, Anay Khator, Robin Singh, "Identification and Analysis of Nitrogen Dioxide Concentration for Air Quality Prediction Using Seasonal Autoregression Integrated with Moving Average", Aerosol Science and Engineering, Vol.04, No.02, pp.137-146, Springer, May 2020.
- Srinidhi H, Siddesh G M, K G Srinivasa, "Data Analytics of Microblogging Data Using Asset Bubble Model", International Journal of Cognitive Informatics and Natural Intelligence (IJCINI), IGI Global Publishers, pp. Vol.14, Issue 02, APR-JUN 2020.
- S R Mani Sekhar, Siddesh GM, Sunil kumar manvi, "Prediction of Protein Secondary Structure from Amino Acid sequence by integrating Fuzzy, Random Forest and Feature Vector Methodologies", Jordan Journal of Biological Sciences, Vol 13, Number 4, 2020.
- Praveen Kumar K, Megha P Arakeri, Enhanced Image Fusion Methodology for Low Light Visible and Infrared Images, International Journal of Innovative Technology and Exploring Engineering (IJITEE), July 2019.

- Vinushree S, Rajaram M. Gowda, Segmentation of Lung cancer using Deep learning, International Journal of Recent Technology and Engineering (IJRTE), ISSN: 2277-3878, Volume-8 Issue-2, July 2019.
- Shashidhara H S and Naveen Kumar S, Emphasis of LiDAR data fusion using iterative closest point and ICP registration, International Journal of Advanced Computer Research, Vol 10(48), May, 2020.
- Kirankumar Kataraki, Sumana Maradithaya , Scalable Handwritten Digit Recognition Application using Neural Network and Convolutional Neural Network On Heterogeneous Architecture, International Journal of Recent Technology and Engineering (IJRTE),ISSN: 2277-3878, Volume-8 Issue-3, September 2019.
- Sumana M, Hareesha K S, Grouping of Distributed Data at Multiple Sites by Sustaining the Privacy of Data, Procedia Computer Science- Elsevier, Volume 171,1688–1697, Jan 2020.
- Rashmitha H.R, Sumana M, Machine Learning for Accurate Prediction of Cardiac Arrhythmia, International Journal of Recent Technology and Engineering, Volume 9, Issue 1, May 2020.
- Savita Shetty , Ayesha Siddiqa , Deep Learning Algorithms and Applications in Computer Vision, International Journal of Computer Sciences and Engineering, Vol.-7, Issue-7, E-ISSN: 2347-2693, July 2019.
- Shruthi N, Sunitha R S, Lincy Mathews, Recommendation System: Techniques Evaluation and Limitations, International Journal of Engineering and Advanced Technology, Vol 8 Issue 6, August 2019.
- V Prithvi Ram, Rajeshwari S.B, Jagadish S Kalliman , Smart Yield Accuracy Prediction Using Linear Regression and Collaborative Filtration, International Journal of Recent Technology and Engineering, Volume-8, Issue-3, Sept 2019.
- Jain, Vybhav ; Rajeshwari, S. B. ; Kallimani, Jagadish S. Emotion Analysis from Human Voice using various Prosodic Features and Text Analysis, Journal of Computational and Theoretical Nanoscience, Oct 2019.
- Desalli, Abhay ; Anirudh, R. ; Prajwal Pai, N. ; Rajeshwari, S. B. ; Kallimani, Jagadish S, Rectifying Incorrectly POS-tagged Polysemy Words in Kannada Language for Machine Translation, Journal of Computational and Theoretical Nanoscience, Oct 2019.
- Prashanth Kambli, Amruthalakshmi, Naresh E , Recognition of Handwritten Digits using Convolutional Neural Network and Linear Binary Pattern, International Journal of Innovative Technology and Exploring Engineering, Vol 09(1), November 2019.
- E. Naresh, Vijaya Kumar, Niranjanamurthy M., Bhawna Nigam Challenges and Issues in Test Process Management, Journal of Computational and Theoretical Nanoscience, Vol 16(9), Sept 2019.

- Dr.Naresh E, well-organized solution and information for cancer disease through web application and app, International Journal of Grid and Distributed Computing, Vol 13(1), March 2020.
- Prashanth Kambli, Amruthalakshmi, Naresh E, Recognition of Handwritten Digits using Convolutional Neural Network and Linear Binary Pattern, International Journal of Innovative Technology and Exploring Engineering, Vol 09(1), November 2019.
- Pruthvi V S, Naresh E, Vijaya Kumar B P, Novel tool for analyzing agriculture related documents, International Journal of Scientific and Technology Research, Vol 8(10), October 2019.
- Jagadeesh Sai D, intrusion detection system to mitigate cyber attacks using machine learning, International Journal of Electrical and Electronics Engineering (IJEEE), Vol. 8, Issue 6, Oct–Nov 2019, 1–10.
- Rajesh S M, Suresh kumar K R , User Satisfaction Detection System for Smart Healthcare using Multimedia, IJITEE - International Journal of Innovative Technology and Exploring Engineering, Volume 8, Issue 10, August 2019.
- Evangeline D, Social Spider Optimization : Theory and its Applications, International Journal of Innovative Technology and Exploring Engineering, Vol 8, Issue 10, August 2019.
- Sangeeta, Shruthi G, Design and implementation of crop yield prediction model in Agriculture, International Journal of Scientific & Technology Research - ISSN 2277-8616, VOLUME 8, ISSUE 01, Jan 2020.
- M. K. Vathsala, Ganga Holi, RNN Based Machine Translation and Transliteration for Twitter data, Journal 10772/IJST - Article 9724, Jun-2020.
- Ashwitha A, Latha C A, Data Management for the Internet of Things: Architecture, Challenges and Technologies, International Journal of Innovative Technology and Exploring Engineering, May 2020.
- Madhura P. Divakara Keerthi V. Trimal, Adithi Krishnan, V. Karthik, Object Detection Using Convex Clustering – A Survey, International Journal of Recent Technology and Engineering (IJRTE), Volume-8 Issue-28, August 2019.
- Rakshata P, Padma H V, Pooja M, Yashaswini H V, **Karthik V**, Car Damage Detection and Analysis Using Deep Learning Algorithm For Automotive, International Journal of Scientific Research & Engineering Trends Volume 5, Issue 6, Nov-Dec-2019.
- Sujata Joshi, Mydhili K Nair (Dec 2019), “Detection of Myocardial Ischemic Events from Echocardiogram using Linear Discriminant Analysis and Multilayer Perceptron”, in Scopus Indexed International Journal of Innovative Technology and Exploring Engineering(IJITEE), ISSN: 2278-3075, Vol 9, Issue-2, Dec 2019.

CONFERENCES

- K Praveen Kumar; Arakeri, Megha P. "Review on Improved Image Fusion Approach" Conference: 2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET). Journal of Physics: Conference Series; Bristol Vol. 1362, Iss. 1, (Nov 2019).
- V. Sneha, K. R. Shrinidhi, R. S. Sunitha and M. K. Nair, "Collaborative Filtering based Recommender System using Regression and Grey Wolf Optimization Algorithm for Sparse Data," 2019 International Conference on Communication and Electronics Systems (ICCES), 2019.
- Anush Kumar, Nihal V. Nayak, Aditya Chandra and Mydhili K. Nair (Sep 2019), "Study on Unsupervised Statistical Machine Translation for Backtranslation", In the Proceedings of Recent Advances in Natural Language Processing(RANLP), 2-4 Sep 2019



STUDENT PUBLICATION

SI no.	Name(s) of Author(s)	Title of Paper	Name of Conference/ Publication	Date
1	Vathsala M K, Srividhya Ravichandran(1MS17IS117) and Nidhi C Patel(1MS17IS074)	A SURVEY ON MULTILINGUAL CODE SWITCHING IN SOCIAL GROUPS	ICRITCSA 2019, Published In International Journal Of Computational and Theoretical NanoScience	Sep-Oct 2019
2	Pruthvi V S, Naresh E, Vijaya Kumar B P	Novel Tool for Analyzing Agriculture Related Documents	IJSTR, Volume -8(10), PP:2817-2820,	October-2019
3	Rajesh S M, Suresh kumar K R	User Satisfaction Detection System for Smart Healthcare using Multimedia	International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-10	August 2019
4	Hemant H Kumar, Tanisha Sabherwal, NimishBongale, Mydhili K Nair	"Spider Monkey Optimization Algorithm in Data Science: A Quantifiable Objective Study"	Machine Learning for Intelligent Decision Science. Algorithms for Intelligent Systems. Springer, Singapore.	April 2020
5	ShrinidhiK.R, SnehaV, Vybhav Jain, Mydhili K Nair	"Multi-Agent Based Systems In Machine Learning And Its Practical Case Studies"	Machine Learning for Intelligent Decision Science. Algorithms for Intelligent Systems. Springer, Singapore	April 2020
6	Anush Kumar, Nihal V. Nayak, Aditya Chandra and Mydhili K. Nair	"Study on Unsupervised Statistical Machine Translation for Backtranslation"	In the Proceedings of Recent Advances in Natural Language Processing(RANLP), 2-4 Sep 2019, Bulgaria	Sep 2019

Sl no.	Name(s) of Author(s)	Title of Paper	Name of Conference/ Publication	Date
7	Sneha V., Shrinidhi K.R., Sunitha R. S., Dr. Mydhili K. Nair	"Collaborative filtering based recommender system using regression and grey wolf optimization algorithm for sparse data"	IEEE International Conference on Communication and Electronics Systems [ICCES 2019], 17-19	July 2019
8	Abhay Desalli, R Anirudh, N Prajwal Pai, S B Rajeshwari, Jagadish S Kallimani	Rectifying Incorrectly part of Speech - Tagged Polysemy words in Kannada Language for Machine Translation	Journal of Computational and Theoretical Nanoscience	September 2019

STUDENT PARTICIPATIONS

Sl No	Student Name	Event	Date	Level
1	Adithya Manikarnike	VTU fest, Indian Group Music participation	2019-12-07	State
2	Benny NandhaDharshan G	Explore ML - Beginner, Google AI. Explore ML	October 2019	State
3	Benny Nandha Dharshan G	Explore ML – Intermediate, Google AI. Explore ML	October 2019	State
4	Benny Nandha Dharshan G	Hackman, Dayananda Sagar College of Engineering	14 – 15, November, 2019	State
5	Navneeth Prasanth	Explore ML - Beginner, Google AI. Explore ML	October 2019	State
6	Navneeth Prasanth	Explore ML – Intermediate, Google AI. Explore ML	October 2019	State
7	Sumith S B	Hackman, Dayananda Sagar College of Engineering	14th-15th Nov 2019	State
8	Sumith S B	Coding, K S Institute of Technology	12th-13th Nov 2019	State
9	Stuti Prasad	HashCode 2019, PESIT	26th-27th Oct 2019	State
10	Adithya Manikarnike	Tunes Of Hindustan, 3rd Place, Sjcc Fest	21st December 2019	State
11	Aishwarya N	HUL BFS Technology Hackathon	12th. 13th September, 2019	National
12	Pavana k	DST and Texas Instruments India Innovation Challenge Design Contest , Powered by AICTE, NSRCEL@IIMB	2019	National
13	Yash Jain	Innovative Idea Competition, AMITY University , Uttar Pradesh	8th – 11th May, 2020	Online - International
14	Amy S Vadakkan	Smart India Hackathon	1st December , 2019	National
15	Jitesh V Kamnani	Participated in Formula Bharat, Kari Motor Speedway	22-26, January 2020	State

STUDENT AWARDS

Sl No	Name	Event details	Organized by	Date	Level
1	Hemant Joshi - 1MS16IS120 VR Karthik - 1MS16IS137 Vikas N S - 1MS16IS109 Biswajit Mohanty - 1MS16IS018	NEC Travel Hack, First Place	NEC Corporation, EC Corporation, Bangalore, Karnataka, Awarded Rs 3 Lakhs/-	25/08/2019 - 26/08/2019	National
2	Hemant Joshi - 1MS16IS137 Aditya Gupta - 1MS15IS007 Jay Sinha - 1MS15IS044 VallabhChugh - 1MS16IS133	Game Oasis Hack. Second Place	Global gaming hackathon co-hosted by Binance Labs, Matic Network, Cocos-BCX, Celer Network, Marlin Protocol, Ankr and Contentos. Won \$300	05/10/2019 - 06/10/2019	National
3	V R Karthik - 1MS16IS109	Code for Good	J P Morgan	06/07/2019 - 07/07/2019	National
4	Vikas N S - 1MS16IS120 V R Karthik - 1MS16IS109 Biswajit Mohanty - 1MS16IS018	Cognizant Master code, First Place	CTS, Awarded Rs. 1 Lakh/-	27/07/2019	National
5	Vikas N S - 1MS16IS120 V R Karthik - 1MS16IS109 Biswajit Mohanty - 1MS16IS018 SubhojitMohanty - 1MS16IS137	CodeFury 2.0 , IEEE UVCE, K R circle, by Rakuten, 1st place	UVCE, Android Application Development, Won Rs 6000/-	15/09/2019	State
6	AbhinavKoul - 1MS18IS006 Piyush Mehta - 1MS16IS149	HUL BFS Hackathon, Second Place	Hindustan Unilever Office. Awarded Rs 30,000/-	28/11/2019	State

7	Satyam Kumar - 1MS17IS110	Best manager,	BMSCE	14/09/2019 - 15/09/2019	State
8	Sachin R S - 1MS17IS149	CodeFury 2.0, 2nd place	UVCE, Android Application Development, Won Rs 5000/-	15/09/2019	State
9	Fawaz Hussain -1MS17IS042 AbhayDesali - 1MS17IS033 Hemanth K - 1MS17IS048	ISKCON Hackathon, 3rd prize,	ISKCON Hackathon, ISKCON, Rs 2000/-	12/10/2019	State
10	Deeksha K P - 1MS17IS039	Spardha	In Table tennis CMRIT	26/09/2019 - 28/09/2019	State
11	Rohit P N- 1MS17IS094 NimishBongale - 1MS17IS077 Raghav Maheshwari - 1MS17IS086 R Anirudh - 1MS17IS084 Tanisha Sabherwal - 1MS17IS146	Manipal Hackathon	Manipal Institute of Technology, Awarded Rs 20,000/-	11/10/2019	National
12	Kushal Garg - 1MS18IS047	Hack -it- on 3.0, 2nd Prize,	CMRIT, Awarded Rs. 5000/-	27/09/201 - 29/09/2019	State
13	NimishBongale - 1MS17IS077	Call for Code Hackathon	IBM India private Limited	29/06/2019	National
14	Vishal Chavan - 1MS16IS115	One Act play	Sir M Visvesvaraya Institute of technology	19/10/2019	State
15	Aayush, Aman, Ishank	1st runner up - India Innovation Series	Microsoft, MapmyIndia, Awarded Rs 15k/-	21/12/2019 - 22/12/2019	National

16	AyushUjjwal - 1MS17IS033	Hash Code 2019	PES University	26/10/2019 - 27/10/2019	State
17	Gaurav Kahyap 1MS17ISO44	Second Position,	Web Application Development Codefury 2.0, IEEE UVCE	15/09/2019	State
18	Pooja Lokesh	1st position,	Inter Collegiate College Fest, Group Dance SJB institute	12/04/2019	State
19	Aman Bhatnagar - 1MS17IS144 AyushUjjwal - 1MS17IS033	Hash Code ,2nd Position 2019	HashCode PES University, Awarded Rs10k	26/10/2019 - 27/10/2019	State
20	Deeksha IMS17IS039	First position, table tennis	CMRIT -annual sports fest Spardha	26/09/2019 - 27/09/2019	State
21	Deeksha IMS17IS039	Third position, table tennis	B.M.S College of Engineering	01/10/2019 - 04/10/2019	State
22	Deeksha IMS17IS039	Winners, table tennis	Atriya institute of technology	30/08/2019	State
23	1MS17IS149 Sachin RS	Second position, web application development CODEFURY 2.0	IEEE UVCE	15/09/2019	State
24	1MS17IS149 Sachin RS	1st place in hackman v4	DayandaSagar college of engineering	09/11/2019 - 10/11/2019	State
25	Vishal Chavan - IMS16IS115	MAAYA 2019, Inter collegiate techno cultural fest	PES University, ECC Campus	15/11/2019	State
26	NimishBongale -1MS17IS077 Pooja Lokesh - 1MS17IS079 RaghavMaheswari - 1MS17IS086 Rohit P N - 1MS17IS094	Smart Aurangabad Hackathon. 2nd Place	Govt college of Engineering, Awarded 30k	01/01/2020 - 03/01/2020	National

27	Hemant Joshi Karthik	Imagine Cup, SemiFinals	International Event	Jan 2020	International
28	Aishwaryamanikarnike IMS17IS009	1st prize veena competition	VeenaDoreswamylen ger Trust	05/03/2020	State
29	Ayana Holla P IMS17IS157	Winner Volleyball	Viswesvaraya University, KIT TIPTUR	2020	State
30	Sachin RS 1MS17IS149	Seventh position, onside coding competition	Indian Institute of Science, Bangalore	2020	State
31	AdithyaManikarnike 1MS19IS005	First place	VTU cultural fest at Dharwad, Skit	06-11-2019	State
32	AdithyaManikarnike 1MS19IS005	First place	TUNES OF HINDUSTAN, ,St. Joseph College of Commerce FEST	20-12-2019	State
33	Trisha Vishwanath 1MS19IS134	Best Director	Took part in Ramaiah's Theatrix competition, shoutout in 2019. Won the title of 'best director' for a skit that I had written and directed called " Meet, my wife".	2019	

CREATIVITY

TRUE BEAUTY

After days of long drought
When the first sign of rain is sought,
That thankful smile on a farmer's face is
The true beauty, truthful beauty!

After weeks of bloodshed on the battlefield
When you protect your country by being its shield,
That heroic smile on a soldier's face is
The true beauty, truthful beauty!

Birds chirping in the morning
The bright sun shining,
These bring a natural smile on everyone
The true beauty, truthful beauty!

Beauty is not the truth shown on the outside
But that which comes from within and is shown on the outside,
That honest smile the face wears is
The true beauty, truthful beauty!

Patience during chaos
Compassion during wars,
Is where true beauty is displayed
And that is where truth and beauty prevail!!

- NIHARIKA H G

REFLECTION

To the world She seems to be A strong, confident woman
Loved by all, Life figured out The perfect role model
But she sees
A little girl
Crying in the cupboard
Lost her way,
Afraid to be brave Afraid to be a coward
Screaming in her head
Quiet in a noisy crowd
Can't get out of bed Running till she fell down Hiding in her shell Fake smile, make up and glow
Stare at her mirror A million pieces Just like her soul.

-Sanjana somanath

WRITINGS

HAVE YOU EVER?

Have you ever..

..made plans with somebody but still trying to put them into action even after repeated failures

..cracked a one liner with somebody but you both ended up making a story out of it

..been so broken but magically a message pops up and you immediately start smiling

..told someone everything about you without the fear of being judged

..cried so hard but always had a shoulder around you to calm you down

..felt so embarrassed and taken aback but ended up in a warm hug with a pat on the back

..experienced another person being teary eyed and super proud looking at your success and happiness

..tried to run away from somebody but your heart brings you back to them every time

Do you all know who'll stand by you till the end

Who'll let you know your faults and help you make the amend

Who knows all your secrets with nothing left to pretend

That's your friend! Yes, that's your friend!

-NIHARIKA H G



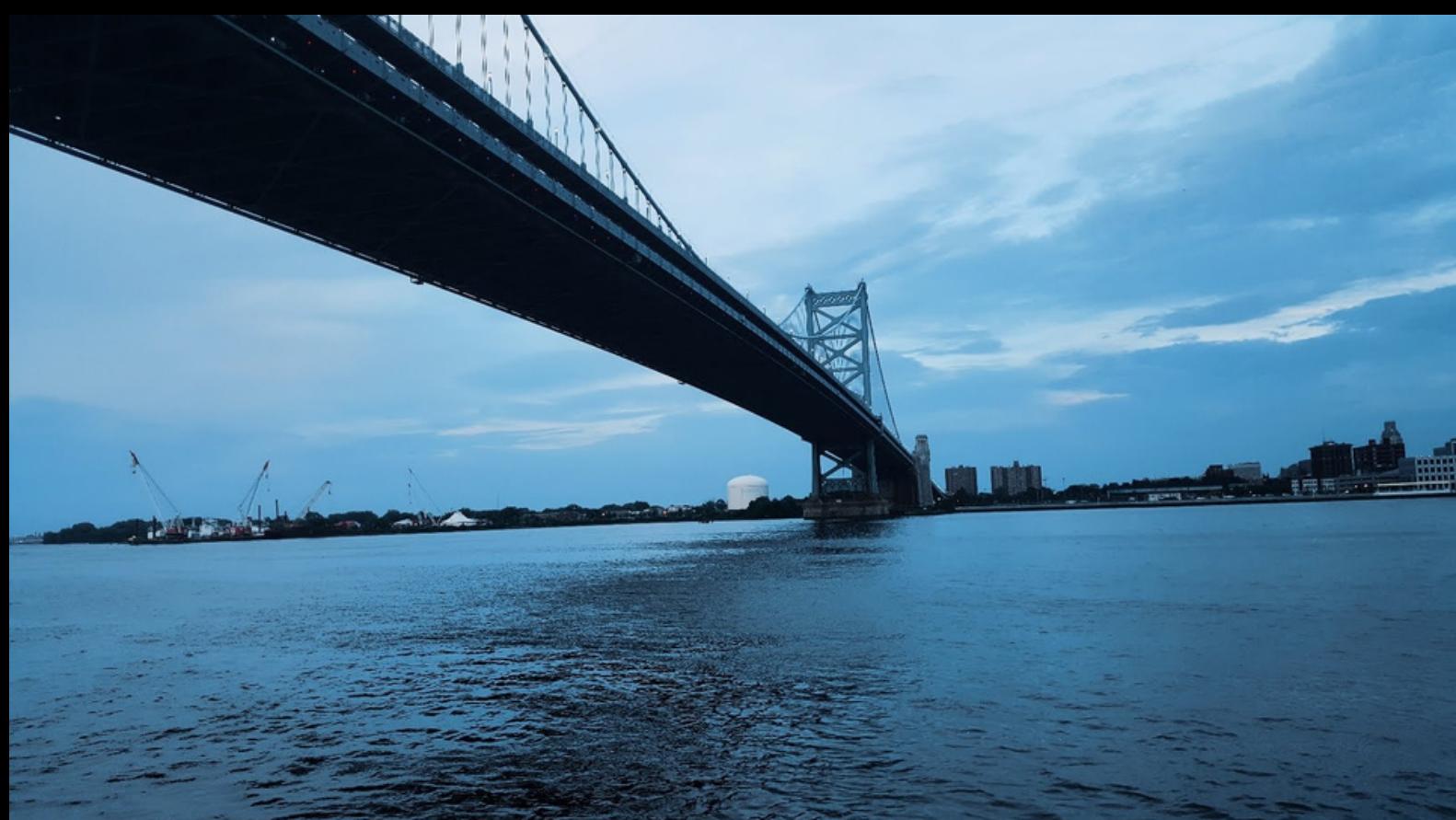
Sachin K Rathod
PHOTOGRAPHY



-SACHIN K RATHOD



-OMSHREE
HIREMATH



PHOTOGRAPHY



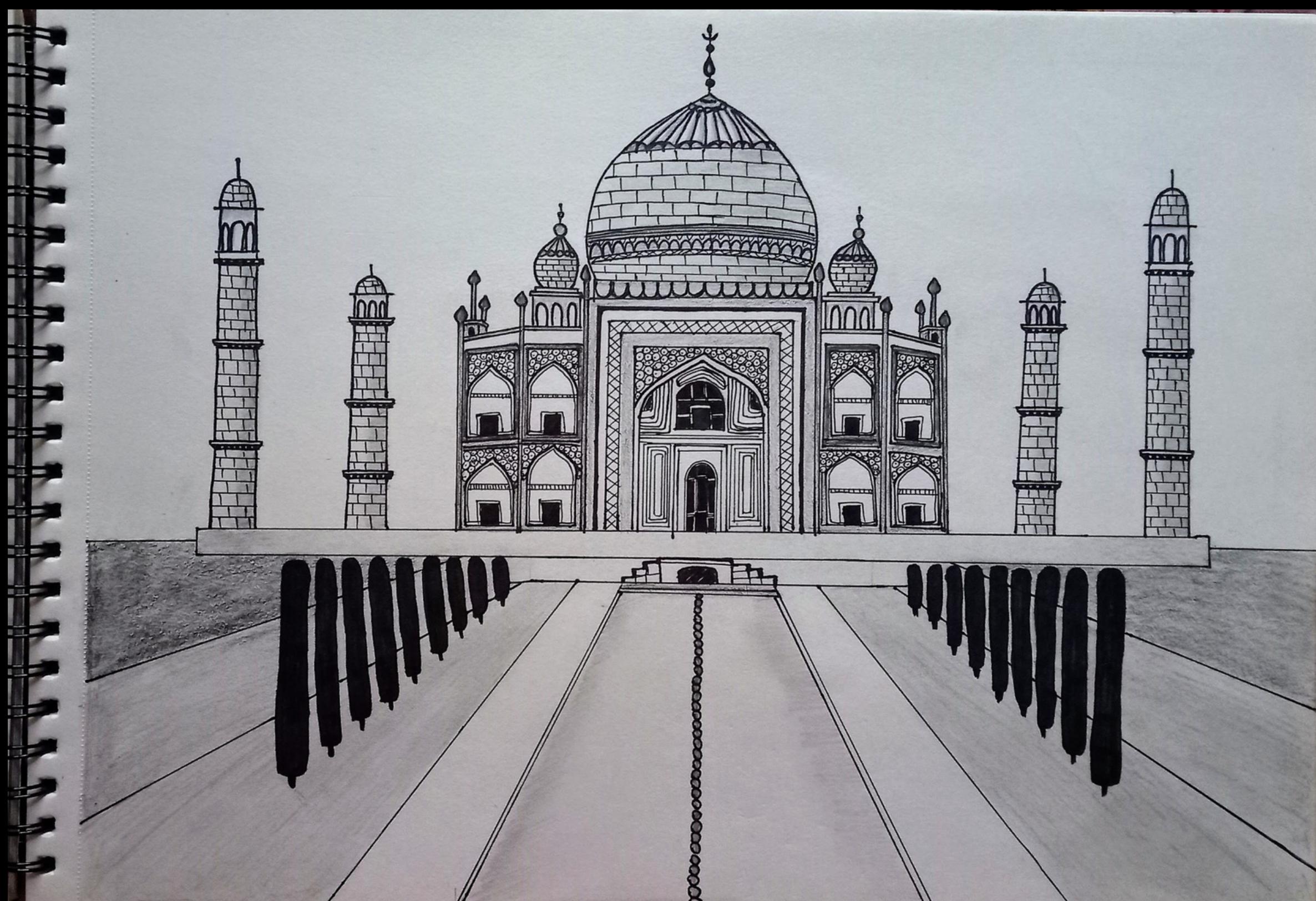
-NAVASMEET
NAYAK

PHOTOGRAPHY



-SANJANA SOMANATH

-POOJA



-VANDANA G

ARTISTIC WORK

EDITORIAL TEAM

Chief Editor : Namratha M N - 1MS19IS075

Navya Kulkarni - 1MS19IS079

H L Shashank - 1MS20IS402

Student Coordinators : Ananya Anil - 1MS19IS013

Neha Vidyamath - 1MS19IS080

Shwetha Sharath - 1MS19IS115

Faculty Coordinators:

- Dr Lincy Meera Matthews
- Evangeline D

On behalf of the department of **Information Science and Engineering**, the editorial team thanks the Head of the Department, professors, faculty, staff, and students for all the support and encouragement to bring out the magazine for the year **2019-2020**