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# DEPARTMENT OF COMPUTER ENGINEERING Annual Report 2020-21

# **Achievement:**

Program Computer Engineering of SIES Graduate school of Technology has received accreditation from National Board for 2021-24.



Accreditation committee visited on 26-28 March 2021. Committee members were

- 1) Chairman: Dr.Swapan Bhattacharya Dept of Computer Sc. & Engg., Jadavpur University, Kolkata, India.
- 2) Dr.Suneeta Agarwal ,Evaluator ,Computer Engineering Department, MNNIT Allahabad
- 3) Dr. Sanjay Dambhare, COEP Pune.

### 1. Academic achievements:

**Student Achievements** 

IIII Networking







# Congratulations!

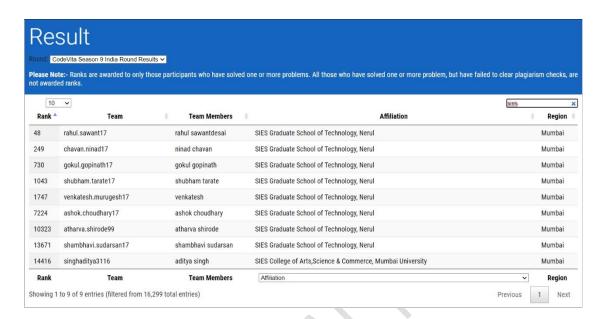
ISTE Codathon: Winners

- ❖ Winner: Sharath K.P. (BABARIA INSTITUTE OF TECHNOLOGY, GUJARAT)
- ❖1st Runners-Up: Vigneshwarane A (PONDICHERRY ENGINEERING COLLEGE)
- \*2nd Runners-Up: Vallabh Ashish Kedarisetti (SIES GRADUATE SCHOOL OF TECHNOLOGY, MAHARASHTRA)
- \*3rd Runners-Up: Saurav Waghade (ST. JOHN COLLEGE OF ENGG. AND MANAGEMENT, MAHARASHTRA)

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 K V Ashish from BE CE was 2<sup>nd</sup> runner up in national level ISTE Codathon dated from 10<sup>th</sup> Aug 2020 to 10<sup>th</sup> Sept 2020.



 Rahul Sawantdesai from BE CE secured 1<sup>st</sup> position in MU at zonal level TCS Codevita dated from Aug-Sept 2020.



 Aakriti Sharma, Abhishek Joshi, Shabarish Ramaswamy and Shlok Vivek from TE CE secured 1<sup>st</sup> prize at Mindsweeper 24 hour codathon conducted by IEEE,CSI -Student Chapter at ZONAL level.

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 V karthikRaj and Vedant Balsubramaniyan completed internship at National Informatics Centre, Govt. ministry at Mantralaya, Mumbai.



MRS. NAYANA VAITY

Hine

DR. ARCHANA MIRE H.O.D. Computer Engineering 1

DR. V.D. KHAIRNAR H.O.D. Information Technology ME.

DR. L.K. RAGHA
Principal

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- Karthik Iyer from TE CE grabbed 1<sup>st</sup> prize at Clash of Codes codethon conducted by CSI-Terna dated 29 Mar 2021.
- Shlok Naik, Shabrish R from TE CE secured 1<sup>st</sup> Runner up position at Texter 2021 conducted by ISTE-SIESGST dated 17 Apr 2021.
- Sahil Pradhan from BE CE secured 2<sup>nd</sup> runner up position at Somaiya Hackathon conducted by K.J. Somaiya College of Engg., dated 19 Apr 2021.
- Suriya P, Shweta R, Pradnya S from BE CE secured Consolation prize at Innovations 2021 conducted by CSI-SIESGST dated 10 Apr 2021.

# Faculty Achievements

- 1. Dr. Aparna Bannore submitted book chapter in "Cyber Security Life Book" Titled An Efficient Proxy Signature based Authority Delegation Scheme for Medical Cyber Physical System published by Taylor and Francis, CRC Press Publication, USA. ISBN No: 9781032111285 HB e ISBN No.: 9781003218555 EB.(In press.)
- 2. Dr. Rizwana Shaikh has submitted book chapter titled, "Blockchain for Wearable Internet of Things in Healthcare" in "Intelligent Interactive Multimedia Systems for e-Healthcare Applications" published by Apple Academic Press, Exclusive worldwide distribution by CRC Press (Taylor & Francis Group).(In press.)
- **3.** Prof. Pranita Mahajan submitted book chapter Book chapter titled ,"Investigating Clinical Named Entity Recognition Approaches for Information Extraction from EMR" in the Book titled Tracking and Preventing Diseases with Artificial Intelligence from a Project Manager published by Scientific Publishing Services, Springer.(In press.)
- **4.** Prof. Pranita Mahajan has successfully copyrighted her work regard to Faculty Feedback Analysis.
- Prof. Pranita Mahajan published in nature springer book titled, "Tracking and Preventing Diseases with AI", with paper title, "Investigating clinical named Entity recognition approach for Information Extraction from EMR"
- **6.** Prof. Kalyani Pampattiwar submitted book chapter titled ,"Challenges, Opportunities and Applications of 5G Network" published by CRC Press Taylor Francis.(In press.)
- **7.** Prof. Anindita Khade submitted book chapter on "Early detection of CKD using AI techniques", published by CRC Taylor and Francis Group. (In press.)

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#### 2. Collaborative/MOUs':

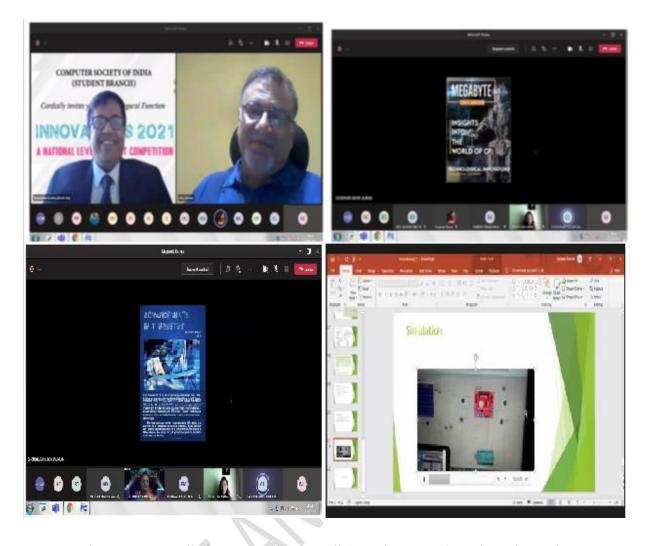
- Computer Engineering Department has signed a MoU with Sahu Technologies on 10<sup>th</sup> Oct 2020.
- Computer Engineering Department has signed a MoU with Outrider Tech Pvt. Ltd. on 10<sup>th</sup> Oct 2020.
- Computer Engineering Department has signed a MoU with Emotivee on 10<sup>th</sup> Oct 2020.

# 3. Department Initiatives:

- Department has submitted four DST research proposals on waste management, e-waste management, Waste Management System for Societal benefit Using IoT and Machine Learning, waste segregation.
- As an initiative towards providing good industry internship opportunities to students department is trying hard to contact companies or startups.
- Prof. Kalyani Pampattiwar has taken initiatives for contacting Reliance Jio and Verchaska infotech Pvt. Ltd. And facilitated internship opportunity for 13 students from TE CE.
  - The partnership between the Institute and the Company is designed to facilitate the internship hiring process by signing MOU with Sahu Technologies, Outrider Tech Pvt. Ltd.
- Apprehending Government related internship and taking necessary steps for the same
- The CSI Student Chapter of SIES Graduate School of Technology organized a national level project competition, INNOVATIONS, on 10<sup>th</sup> April 2021. Total 36 teams participated from various engineering colleges in India. Dr. Ravishankar Dudhe, Associate Professor Senior Grade, Program Coordinator, Ph.D. Coordinator for School of Engineering and IT and Research Coordinator of Manipal Academy of Higher Education, Dubai as the chief guest for the event.

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- Industry expert talk for BECE (C & D div) students conducted on the topic "Current trends in HMI" on 27/4/21. Session was conducted by Mr. Atul Jadhav from 9th legend.
- Industry expert talk for TECE (C & D div) students conducted on the topic "Threat Life cycle" on 24/4/21. Session was conducted by Mr. Sachin Matte from Zscaler.
- The Department of Computer Engineering is organizing Virtual Symposium "Innovative teaching-learning techniques in Engineering Education (ITLEE)" 2021 on 2-3 July 2021. It will be in online mode. ITLEE 2021 aims to provide a platform for researchers, teachers and instructional designers to share the innovative teaching-learning practices followed in Engineering Education.
- Department of Computer engineering is planning to organize value added course on Data Science from 29/06/21 to 05/07/21. The course is designed and develop to provide exposure to the topics of deep Learning, Quantum Machine learning and Advanced Natural Language processing in Data science.

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#### **Academic / technical achievements of students:**

- Ninad Chavan, Gokul G, Rahul S , Shubham T, Venkatesh M, Ashok C, Atharva , Shambhavi from BE CE were in Top 100 in Mumbai Region in TCS Codevita, dated Aug-Sept 2020
- V.Karthikraj, Tejas Shenoy, Shardul Doke, Yogesh Vishwanathan, Shreyas Shridhar, Shruti Kiran Tambe from BE CE participated at national level SIH 2020, dated 1<sup>st</sup> Aug to 3<sup>rd</sup> Aug.
- Zainab Bubere, Abubakkar Wasim from TE CE Selected for semifinals at zonal level Anveshna 2020-21.
- Aakriti Sharma, Abhishekh Joshi, Shabarish Ramaswamy, Shlok Vivek from TE CE participated at national level Gov Tech Thon conducted by IEEE in collaboration with NIC dated 30<sup>th</sup> Oct to 1<sup>st</sup> Nov 2020.



 Kaushik Shridhar, Shinit Shetty, Nandita N, Pournima Pottekat from SE CE Selected for zonal level semifinals at Deep Blue 2020-21 dated Oct 2020-Feb 2021.



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- Sanjana Sharma, Anandteertha Rao, Varun Sreedhar, Sreekrishna Veturi from TE CE
   Selected for zonal level semifinals at Deep Blue 2020-21 dated Oct 2020-Feb 2021.
- Shabrish from TECE won 2nd Prize in IETE SIESGST TechXter National level technical paper presentation.
- Sarthak Sharma, Roshni Balasubramanium, Tanvi Sandhu from BECE june 2020 Passout batch got certified for presenting paper entitled "Tagging of Regional websites using Fuzzy Logic" in IEEE International conference for Innovation in technology (INOCON 2020).
- Chetan Ade, Rohan Brid, Saijayanth Chidirala from BECE June 2020 passout batch paper title "Simulation of a Nuclear Cloud's propagation following a Nuclear Accident" got Selected in IEEE conference I2CT which is to be held in 2-4 APRIL 2021.
- Ayaluri Venkata Naga Amruta Sai, a Final year student of the Computer Engineering department C division has been selected by Morgan Stanley for online Spring internship program, jan 2021.

### 5. Cultural / sports achievements:

- Shabrish from TECE won 1st Prize in LFPA Literat Team SIESGST National level debate competition, April 2021.
- Shabrish from TECE won 1st Prize in MSCW, DU National Level conventional debate competition, April 2021.

# 6. Faculty achievements/Research grants:

# **Faculty achievements**

- Prof. Gayatri Bedre has successfully completed Microsoft Azure Administrator Associate certification.
- As a part of syllabus revision S.E. Faculties have attended Orientation of Mumbai University on various subjects.
- Many faculties are acting as a part of syllabus revision committees, paper moderation and paper setter committees.
- Dr. Rizwana shaikh, Masooda Modak Conducted Session on Blockchain Implementation in SDP.

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- Dr. Rizwana Shaikh has conducted session for SE CE students on "How to write technical report" dated 8 Dec 2020.
- Dr. Deepti Reddy conducted session on "Technical paper reading" for SE CE on 04-11-2020.
- Prof. Prachi Shahane Conducted C programming session under CSI dated 18th sep 2020.
- Prof. Pranita Mahajan and Masooda Modak complted training on AI/ML, by ISTE and BNY MELLON.
- Prof. Pranita Mahajan acted as SPOC for GyaanHack 2021, Maharashtra (tie2,tier3 cites hackathon, MHRD)
- Prof. Kalyani Pampattiwar Completed BodhiTree: A Platform for Improving Learning Outcomes using Online Interactive Courses and Assessed Labs", IITB.
- Prof. Anindita Khade attended online virtual conference on wearable sensors and device by IEEEE Gujrat sensor council on feb 6 & 7, 2021.
- Dr. Varsha Patil conducted Guest Lecture at Terna Engineering College for NLP Subject topic "Maximum Entropy Model & Conditional Random Field".
- Dr. Rizwana Shaikh has been invited as a member of the Technical Program Committee for IEEE Conference GUCON 2020.
- Dr. Rizwana shaikh acted as reviewer for International conference at SPIT.
- Prof. Masooda Modak acted as reviewer for GUCON 2021.

# **DST Research Proposals**

- 1. Dr. Aparna Bannore, Pranita Mahajan, Ujwala Ravale submitted DST proposal on "Automated Plastic Waste Profiling and Segregation with Robotic Arm".
- 2. Rajesh Kadu ,Suvarna Chaure, Sunil k.Punjabi submitted DST proposal on "Waste Management System for Societal benefit Using IoT and Machine Learning".
- 3. Dr. Deepti Reddy, Prachi Shahane submitted DST proposal on "Prediction and mining of student behavior in complex problem-solving environment".
- Dr. Rizwana Shaikh ,Masooda Modak,Kalyani Pampattiwar submitted DST proposal on "Smart and Intelligent IoT Based E-Waste Management."

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### MAJOR EXTRA /CO-CURRICULAR ACTIVITIES

- Web designing competition for TE(CE) students were conducted under CSI dated 1-12-2020.
- Poster Presentation activity for final year students were conducted under CSI dated 6/02/2021 to 27/02/2021
- Android App development competition were conducted under CSI dated 04-02-2021.

# **Online Courses**

- Dr. Rizwana Shaikh Completed various courses on Blockchain in Course-era.
- Prof. Suvarna Chaure completed Udemy course on "Ethical Hacking and Security".
- Prof. Kalyani Pampattiwar, Namrata Patel, Prof. Masooda Modak completed Coursera course on "Blockchain Basics".
- Prof. Masooda Modak completed courses on "BLOCKCHAIN TECHNOLOGY",
   "WEB TECHNOLOGIES".
- Prof. Anindiata Khade completed various courses on Winter School on Wearable Sensors and Devices, IEEE, 06-02-2021 to 07-02-2021, Artificial Intelligence, AICTE, 23-11-2020 to 27-11-2020, Course on LATEX on Engineers, IITBombayX, 15-07-2020 to 15-12-2020.

## **Publications**

- Dr. Deepti Reddy published paper on, "Learning Environments for Fostering Disciplinary Practices in CS Undergraduates", at Proceedings of the 52nd ACM Technical Symposium on Computer Science Education.
- Dr Rizwana Shaikh published paper on," Prediction And Preventive Awareness Of Chronic Kidney Disease Using Machine Learning Algorithms", at International Research Journal of Modernization in Engineering Technology and Science Volume:02/Issue:09/September-2020.
- Dr Rizwana Shaikh, Prof. Masooda Modak published paper on," Smart Transportation using Fog Computing", at Springer: ICDSMLA 2020 - International Conference on Data Science, Machine Learning & Applications.

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- Prof. Prachi Shahane, Prof. Pranita Mahajan published paper on," An IoT Based System for Water Quality Monitoring", at Elsevier- International conference on IOT Based Control Networks and Intellegent System.
- Prof. Pranita Mahajan published paper on, "Prediction And Preventive Awareness Of Chronic Kidney Disease Using Machine Learning Algorithms", at International Research Journal of Modernization in Engineering Technology and Science Volume:02/Issue:09/September-2020.
- Dr. Varsha Patil published paper on," Visual Speech Recognition: A Deep Learning", at Fifth International Conference on Communication and Electronics Systems (ICCES 2020).
- Prof. Kalyani Pampattiwar, Prof. Masooda Modak, Prof. Namrata Patel published on "Face Recognition Using Neural Network", at IJCRT, Volume 9 Issue 3, ,Date of Publication:March 2021 2021-03-03 23:35:40.
- Dr. Varsha Patil, Prof. Kranti Bade, Prof. Namrata Patel, Dr. Rajesh Kadu has published paper on, "Food Quality Monitoring using cognitive IOT", International Conference on "Data Science and Management" ICDSM-2021, Springer.
- Dr. Varsha Patil published paper on, "System for Full Immunization Coverage", at International Conference on "Data Science and Management" ICDSM-2021, Springer.
- Prof. Kranti Bade presented paper on, "A Pluvial Flood Detection Model", at Fifth International Conference on Communication and Electronics Systems (ICCES 2020).
- Prof. Anindita Khade published paper on, "Early Prediction of Brain Stroke using Machine Learning Techniques", at International Journal for Research in Engineering Application & Management (IJREAM) Volume - 07, Issue - 02, May 2021.
- Prof. Masooda Modak published paper on," Detection of Learning Disability: A Survey",
   at SpringerICDSMLA 2020 International Conference on Data Science, Machine Learning & Applications.
- Prof. Aarthi B, published paper on," Early Prediction of Brain Stroke using Machine Learning Techniques", at International Journal for Research in Engineering Application & Management (IJREAM) Volume - 07, Issue - 02, May 2021.
- Prof.Urvashi Patkar has published paper on "Face Mask Detection and Alert System", in AIJR in May 2021.

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# 7. Seminars/workshops organised by departments: Faculty Development Program

# STTP

• Department of Computer Engineering has organized ISTE approved Short Term Training Program on "Blockchain Technology" from 04/01/2021 to 09/01/2021. Resource person were Mr. Revanth Kumar( Community Builder, Ex-Pegasystems & E, Hyderabad), Mr. Prasad Ghag( Tata Consultancy Services ), Dr.Rizwana Shaikh, Prof.Masooda Modak. Around 25 participants from SIES GST and other colleges attended the STTP. Entire program was carried out in six days span. Eveready's session is divided into two halves morning and afternoon.



 Department of Computer Engineering has organized FDP on, "Agile Methodology and Current Trends" on 21/11/2020 by Mr. Krishna Bidwai, Senior Manager, Cappemini Pune.

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 Department of Computer Engineering has organized FDP on, "Next Gen Technologies" on 05/12/2020 by Mr. Aniket Mhala Senior Director, Oracle.

# Workshop

Department has conducted various student development activities under CSI:

- Webinar on IoT dated 11-07-2020.
- Workshop on React JS dated 17-10-2020
- Workshop on SpringBoot dated 24-10-2020
- Workshop on Blockchain 31-10-2020
- Inspect Element 1.0- Web development competition dated 26-11-2020 to 3-12-2020
- Web designing competition for TE(CE) students dated 1-12-2020
- Expectations of Java/SQL in IT industry dated 02-06-2021 by Sarah Dsouza, IT Analyst,
   TCS
- Workshop on AWS dated 13/02/2021 by Minakshi Rane, Senior Lead, Tata Commucations
- Full stack Developer Course dated 20/02/2021
- Workshop on Latex dated 26/03/2021 by Dr. Varsha Patil
- Webinar on Social Profie building dated 19/02/2021 by Renu Kadam
- Webinar on guidance on Internnational Internship dated 27/03/2021 by Renu Kadam

#### Seminar

- Dr. Rizwana Shaikh has conducted session for SE CE students on "How to write technical report" dated 8 Dec 2020.
- Dr. Deepti Reddy conducted session on "Technical paper reading" for SE CE on 04-11-2020.
- Prof. Prachi Shahane Conducted C programming session under CSI dated 18th sep 2020.
- Industry expert talk for BECE (C & D div) students conducted on the topic "Current trends in HMI" on 27/4/21. Session was conducted by Mr. Atul Jadhav from 9th legend.
- Industry expert talk for TECE (C & D div) students conducted on the topic "Threat Life cycle" on 24/4/21. Session was conducted by Mr. Sachin Matte from Zscaler.

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#### **SDP**

 Department of Computer Engineering conducted Student Development Program with Internship on, "Web and Mobile App Development" dated 28/06/2021 to 03/07/2021 for SE students. Resource person were Prof. Sunil kumar Punjabi, Masooda Modak, Jyoti T.

### **Internship**

- Many students of the second and third year from Computer Engineering Department
  has completed internship as a part of Student Development Programme, industry
  internship.
- For CAY 2020-21, 23 students have completed their internship (ongoing) from various reputed organizations like Outrider Pvt. Ltd., Mumbai, Cloud Counselage, Vikroli, BARC, Majesco etc.

# Seminars/workshops attended by departments

- Prof. Arathi B. and Dr. Varsha Patil completed AICTE-ISTE sponsored six days FDP on "Machine learning and optimization" from 17/5/2021 to 22/5/2021.
- Prof Prachi, Prof. Anindita, Prof Namrata, Prof. Suvarna, Prof. Sunil completed 5 days online FDP on "Inculcating Universal Human Values in Technical education" organized by AICTE between 3/5/2021 to 7/5/2021 and 10/5/2021 to 14/5/2021.
- Prof. Anindita Khade and Prof. Ujwala Rawale has completed QIP in "Machine Learning for NLP and IoT" from 22/1/21 to 26/1/21 organized by IIT Roorkee.
- Prof. Kalyani Pampattiwar, Namrata Patel, Prof. Masooda Modak completed QIP on "Machine Learning Techniques" conducted by IIT Roorkee, 21-12-2020 to 25-12-2021
- All department faculties attended STTP on "Blockchain Technology" organized by department dated 4 Jan 2021 to 9 Jan 2021.
- Prof. Kalyani Pampattiwar, Suvarna Chaure completed CDEEP course on "Pedagogy Workshop on How to teach Programming Basics" conducted by IITBombayX.
- Prof. Prachi Shahane attended AICTE STTP on Natural Language Processing and Google DialogFlow at UMIT SNDT University dated 24-05-21 to 29-05-21.
- Prof. Gayatri Bedre attended course on "Design and Development of Content for e-Learning(STTP), NITTR Kolkatta, 14-06-2021 to 25-06-2021

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# **Online Teaching -Learning**

- In the pandamedic situation, the department organized the lectures and practicals in online mode using Microsoft Teams. Various online classes and activities conducted by the department.
- Practicals for the various subjects were conducted by providing videos of practicals using simulators and using virtual classroom and Zoom virtual laboratory. Usage of various tools like Mentimeter, Polls everywhere, Openboard, JamBoard, kahoot etc was been used.

