



JULY - DECEMBER 2020

SAMIKSHA-Newsletter

Department of Freshman Engineering

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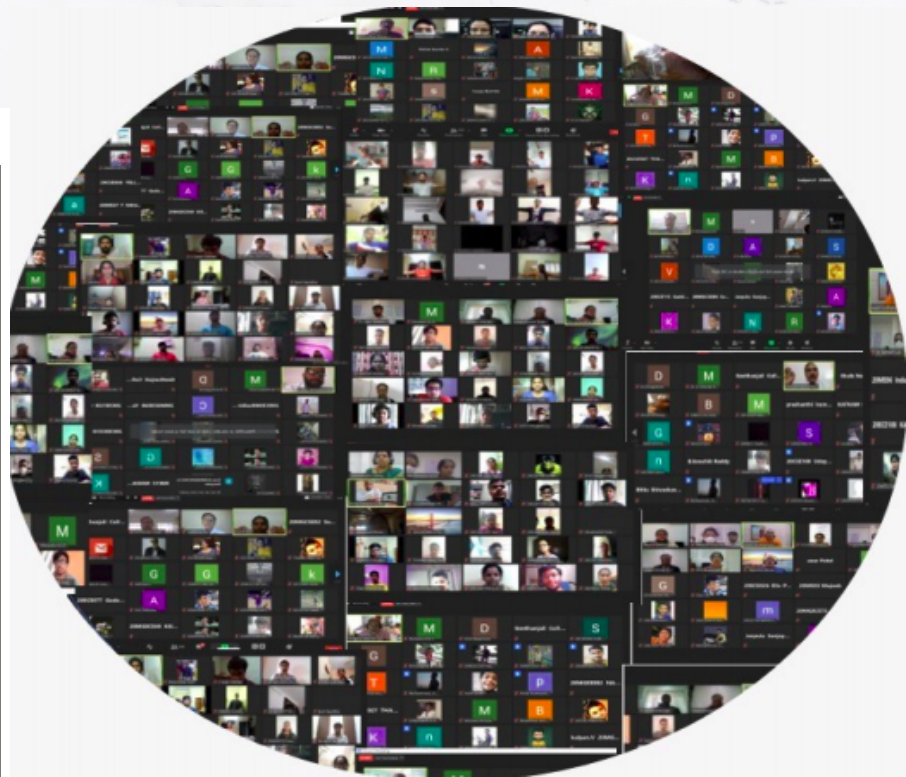
Sri G. R. Ravinder Reddy

Principal

Dr. S. Udaya Kumar

Head of the Department

Dr. G. Neeraja Rani



E-Student Induction Program-19th November to 19th December, 2020

Veterans from various fields have shared their expertise on varied topics. Knowledge shared by experienced Resources Persons is undoubtedly a great source of inspiration to all budding engineers. Activities that harness civic, moral and social responsibilities of an individual were conducted. Eminent persons from industry were invited to deliver lectures on the need for learning creative arts and respecting one's culture. Physical activities reduce stress and adds fervour to the quality of life. Going with the often quoted adage 'All work and no play, makes Jack a dull boy' students participated in Yoga and Meditation Sessions. Sessions on Mentoring and Universal Human Values enabled the students to acquire necessary skills to combat the evils in society. They are sensitized towards the societal needs, thereby the seed of innovation is sown among them. Character building is possible through mentoring and Universal Human Values. In order to promote and develop a penchant for improving Special Skills Diagnostic Tests are administered to assess the knowledge level of the students in various concepts. These tests were designed and carried out by in-house faculty. The Proficiency Modules are aimed at making the students' realize their potential and the sessions by in-house faculty of English, Mathematics and Science provided adequate cues to overcome the misfalls that hinder the progress of students. Students had a virtual visit of the department pertaining to their branch of Engineering and were exposed to various laboratories and other facilities available in the Department. Interaction with peers and Alumni was facilitated to enable them to know the needs of the industry.

Ongoing Projects

1. Dr. S. Udaya Kumar (PI), Dr. G. Neeraja Rani (CO-PI), Mr. O.V.P.R Shiva Kumar-ECE (CO-PI) and Dr. P. Raju (Team Member) are working on a project titled “Development of Novel Carbon Nano tube/ polymer Nanocomposites materials for EMI applications” worth Rs. 45 Lakhs sanctioned by DRDO.

Status: Completed second project review successfully on 28th Jan 2021. One paper is communicated to Journal of Physics and Chemistry of Solids of Elsevier (a Scopus Indexed Journal).

2. Dr. N. Subhadra of Mathematics received a project entitled “Peristaltic Transport of Nanofluids” as Principal Investigator, worth 2 Lakhs from JNTUH TEQIP-III. one paper is published in AIP Conference Proceedings. One more paper is under review.

3. Dr. K. Sashikala of Chemistry received a project entitled “A Facile synthesis and anti-cancer activity of novel quinoxaline-2-carbo hydrazide – N-oxide derivatives” as Principal Investigator, worth 2.5 Lakhs from JNTUH TEQIP-III. One paper is accepted for publication in AIP Conference Proceedings.

Invited Talks (In-house/Off the Campus)

1. Dr. K. Venkateshwarlu gave a lecture on '*Features of Google Forms.*'

2. Dr. Sk. Nuslin conducted a session on '*Google Classroom.*'

3. Dr. P. Raju conducted two sessions on '*Virtual Labs in Physics and Electronics*' for Aurora's Degree and PG College Hyderabad and Usha Rama College of Engineering and Technology, Vijayawada from 3-4 July, 2020 and 17-18 July, 2020 respectively. He has given another lecture on '*Use of Virtual Lab - A Powerful Tool for E- Learning*' on 14 September, 2020 at Jabalpur Engineering College, Maharashtra.

4. Dr. P. Raju also conducted a session in National Workshop on '*Virtual Lab*' on 26th September, 2020 organized by Vimala College, Thrissur.

5. Dr. P. Raju gave another invited talk on '*Orientation to Virtual Labs*' on November 28, 2020, organized by Department of Physics, Rathinam College of Arts and Science, Coimbatore.

6. Dr. Anurag Gautam gave lectures on '*Nanoparticles Synthesis and their Applications in Magnetic Resonance Imaging*' in Yeshwant rao Chavan College of Arts, Commercial and Science, Maharashtra on 1st and 2nd August, 2020.

7. Dr. Anurag has also given a lecture on '*Nanoparticles for High Magnetic Field Applications*' on 23rd July, 2020 in Chikkaiah Naicker College, Tamilnadu.

8. Dr. N. Subhadra gave a talk on '*A New Approach to Transportation. Problem*' on 26th August, 2020 conducted by Rajasthan Technical University, Kota and BK Birla Institute of Engineering and Technology, Pilani. She gave a lecture on Mathematics on 14th September, 2020 at Rajasthan Technical University, Kota and Vivekananda Institute of Technology, Jaipur.

9. Dr. B. Nagamani gave a lecture on '*ICT in Effective Communication*' on 3rd September, 2020 organized by Rajasthan Technical University, Kota.

10. Dr. J. Shankar conducted a session on '*Orientation on Virtual Labs*', organized by Rathinam College of Arts & Science, Coimbatore on November 29, 2020.

11. Dr. J. Anjaiah gave a lecture on '*Orientation on Virtual Labs*' organized by Department of Physics, Rathinam College of Arts and Science, Coimbatore on November 30, 2020.

Papers Published

1. Dr. K. Shashikala published a paper titled "*Microwave Assisted Synthesis of 3-Chloro-N-(2-(5-chloro-1-tosyl-1H-benzo [d] Imidazol-2-yl) ethyl)-N-Substituted Quinoxalin-2-Amine Derivatives Using DCQX*" in Organic Chemistry Plus in July 2020.
2. Dr. N. Subhadra published two papers titled "*A mathematical study on two layered blood flow of a couple-stress fluid*" and "*Heat and mass transfer effects of power-law fluid in an inclined tube*" in AIP conference proceedings in July 2020.
3. Ms. P. Sailaja published a paper titled "*Existence of bounded solutions for first order Kronecker product systems on time scales*" in International Journal of Recent Scientific Research in July 2020.
4. Dr. G. Neeraja Rani published a paper titled "*Effect of annealing on photoluminescence of MgAl_{1.8}Y_{0.14}Eu_{0.06}O₄*" in Chemical Physics in August 2020.
5. Dr. R Sanjeev published three papers titled "*Attenuation of aliphatic acids extended to alkanes the carbon acids via the aliphatic alcohols: An educational perspective*", "*Comparison of substituent effect in benzene, pyridines, phosphorines and their protonated species*" and "*Application of Hammett equation to hydrogen bond interactions of benzoic acid in chloroform/water system and explanation for non linear Hammett relation to partition coefficients for the same system*" in Khimaya (Bulgaria), World Journal of Chemical Education (USA) and Computational and Theoretical Chemistry respectively in Sept. 2020.
6. Mr. A. Ramesh published a paper titled "*Investigation on natural convective flow of ethylene glycol nanofluid containing nanoparticles Fe₃O₄ in a porous cavity with radiation*" in AIP Conference Proceedings in Oct. 2020.
7. Dr. N. Subhadra published a paper titled "*Mathematical approach to study heat and mass transfer effects in transport phenomena of a non-Newtonian fluid*" in AIP Conference Proceedings in Oct. 2020.
8. Ms. P. Sailaja published a paper titled "*A New approach to the construction of transition matrix with application to control systems*" in AIP Conference Proceedings in Oct. 2020.
9. Dr. J. Shankar, Dr. P. Raju, Mr. A. Shiva Kumar, Dr. J. Anjaiah and Dr. G. Neeraja Rani published a paper titled "*Study of microstructure and thermal properties of PbTiO₃ based glass ceramics*" in AIP Conference Proceedings in Oct. 2020.
10. Dr. G. Neeraja Rani, Dr. J. Shankar, Dr. P. Raju, Dr. J. Anjaiah and Dr. B. Mamatha published a paper titled "*Quenching effect of co-dopant Pr³⁺ on red emitting yttrium vanadate phosphor doped with Eu (III)*" in AIP Conference Proceedings in Oct. 2020.
11. Ms. G. Latha Suhasini published a paper titled "*Web 2.0 Tools: Use Of Kahoot To Reduce The Spelling Mistakes Among B.Tech Learners Of Communicative English*" in International Journal of Interdisciplinary Research in Arts and Humanities in Oct. 2020.
12. Dr. R. Sanjeev published a paper titled "*A simple rule of thumb for the explanation of d orbital splitting in complexes*" in Educacion Quimica in Oct. 2020.
13. Dr. Nuslin Bibi published a paper titled "*Heat and mass transfer on unsteady magneto hydrodynamic flow through porous medium in a rotating channel*" in AIP Conference Proceedings in Oct. 2020.
14. Ms. G. Padma published a paper titled "*Chemical reaction and soot, Dufour effect on radiation-convection flow with porous medium*" in AIP Conference Proceedings in Oct. 2020.
15. Dr. Raju Panthagani published a paper titled "*Structural and microwave behaviour of Dy³⁺ - substituted Ni_{0.5}Zn_{0.5}Dy_xFe_{2-x}O₄ ferrites*" in Journal of Material Science and Material Electronics in Nov. 2020.
16. Ms. V Manjula published a paper titled "*Influence of Hydrogen bond networks in Glycerol/NMP mixtures studied by Dielectric relaxation spectroscopy*" in Journal of Molecular Structure in Dec. 2020.
17. Dr. B. Nagamani published a paper titled "*Engaging Online classes through JAM board- a web 2.0 tool*" in International journal of Multidisciplinary Educational Research in Dec. 2020.

Faculty Contributions

- *Dr. P. Sreedhar* was awarded PhD in Chemistry from Osmania University on 07-11-2020.
- *Dr. B. Nagamani* secured II prize in National Level Podcasting competition conducted by ELT@I as part of Teachers' Day Celebrations.
- *Dr. N. Subhadra* has chaired a technical session in the 65th Congress of Indian Society for Theoretical and Applied Mechanics (ISTAM-2020) during 9-11, Dec 2020 at GITAM Deemed to be university, Hyderabad.

Workshops/FDPs/STTPs/Conferences Attended by Faculty

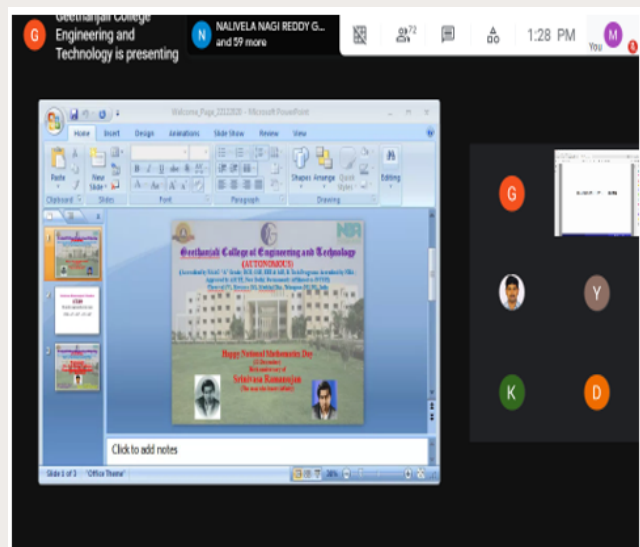
- Webinars attended: 343
- FDPs attended: 210
- Workshops attended: 35
- Conferences attended: 12
- STTPs attended: 185
- Quizzes Participated: 112

Massive Open Online Courses Completed

- Coursera: 115
- NPTEL: 01

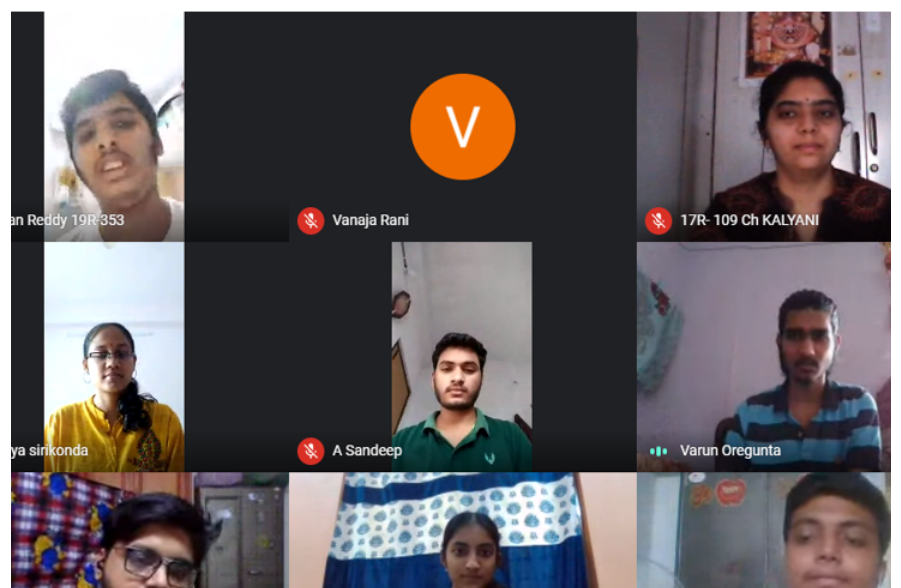
Guest Lectures Organized for Students

Dr. C. S. Sastry, Professor, Department of Mathematics, IIT Hyderabad addressed B.Tech I Year Students on Mathematics behind Machine Learning on 22-12-2020.



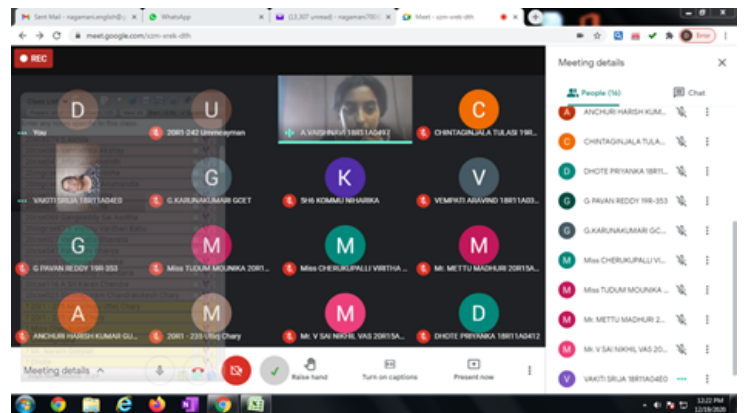
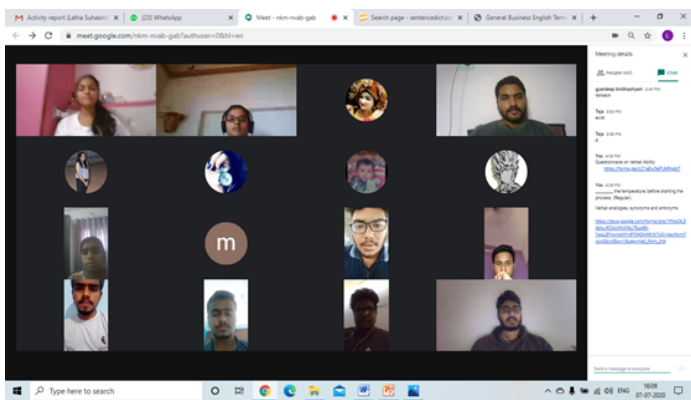
Co-Curricular Activities

1. Science Club has conducted Quiz competition twice for students on 22-12-2020 and 27-12-2020 respectively.
2. Literary Club conducted Elocution Competition on the Topic "*Role of the Engineers - strengthening the Country*" on 15-09-2020.
3. Poster presentation on the topic "*Stay United and Work With Integrity*" was organized by Literary Club on 31-10-2020.
4. An Audio-Visual Presentation on the topic "*To a Farmer Dirt is not a Waste, it is Wealth*" was conducted by Literary Club on 23-12-2020.
5. As per Telangana Government's instructions under Environmental club activities "*Haritha Haram*" program was conducted for students on 15-08-2020.
6. Students made Eco-Friendly Ganesh Idol for Ganesh Chaturthi on 22-08-2020 as part of activities by the Environmental Club.



Placement Training

1. Pre-Placement Training Programme for IV-year Engineering students was conducted by Centre for Soft Skills Development from 29-06-2020 to 09-7-2020. More than 300 students were benefited by the training.
2. Verbal Ability Training for B. Tech-IV/I Sem. was provided by Centre for Soft Skills Development from 13-07-2020 to 07-08-2020. Total no of students benefited were 367.
3. English Language Skill Enhancement Training for Faculty was given by Centre for Soft Skills Development during 14-09-2020 to 30-09-2020 by faculty of English.
4. Coordinator of Centre for Soft Skills Development provided One Week Staff Development Programme from 27-04-2020 to 04-05-2020.
5. Human Library Activity was conducted by Centre for Soft Skills Development for II/III B. Tech students on 19-12-2020.
6. Aptitude and Logical Reasoning was given to B.Tech. III Year students on every Saturday from 6th June 2020 to Dec. 2020 by Faculty of Mathematics.



Editorial Board Members

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Dr. N. Subhadra
Associate Professor of Mathematics

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