

PSG INSTITUTE OF TECHNOLOGY AND APPLIED RESEARCH (Approved by AICTE and Affiliated to Anna University) Neelambur, Coimbatore - 641062

QUARTERLY REPORT (JULY - SEPTEMBER 2020)

Events Organized:

The 74th Independence Day Celebrations

India's 74th Independence Day was celebrated in PSG iTech with adherence to Covid-19 protocols, including wearing of protective respiratory masks and social distancing. Dr P V Mohanram, Principal, PSG iTech, unfurled the national flag and delivered the Independence Day address. In his commemorative speech, he spoke about the sacrifices made by the freedom fighters, their patriotism, and inner-strength. Also, he cited excerpts from the Indian Noble laureate Rabindranath Tagore's celebrated work *Gitanjali*. Later, Dr. S. Arumuthakannan, Associate Professor, Dept. of Mathematics, delivered a motivational talk on *"Manathil Uruthi Vendum"*.He quoted the poetic lines from the works of the freedom fighter *Mahakavi* Bharathiyar. Members of faculty, staff and quarters residents participated in the ceremony and paid their tributes. The ceremony was held in the college Open Ground. Finally, Dr G Chandramohan, Vice-Principal, proposed the vote of thanks.



Dr P V Mohanram, Principal, hoisted the national flag during the 74th Independence Day



Dr P V Mohanram, Principal, delivered the welcome address on the eve of Independence Day

Ganesh Chaturthi Celebrations

PSG Institute of Technology and Applied Research, Coimbatore celebrated the Ganesh Chaturthi function on 22nd August 2020 (Saturday) at Vidhya (Education) Vinayagar Temple located in our college premises. The Vidhya Vinayagar Idol was marvelously decorated with colorful flowers and sandalwood powder; a special pooja was performed on the auspicious occasion.

After Maha Deepa Arathanai, devotees were offered with specially-made prasadams. About 75 people, comprising Members of faculty in the staff quarters along with their family members, estate office staff, power house staff, housekeeping staff, garden and construction workers, attended the event. Dr. N. Saravanakumar, Professor and Head, organized the event.

Orientation for Lateral Entry Students

PSG iTech has organized a Virtual Orientation for the lateral entry students, who have joined under the Management Quota, on 5th September 2020 in the college premises. Principal Dr.P.V.Mohanram welcomed the lateral entry students from different disciplines and addressed on several academic challenges they are likely to encounter. During the interactions, it was emphasized that students could approach the Members of Faculty without any inhibitions and unstinting support would be ensured for their academic career. Students were asked to utilize the state-of-art infrastructure facilities available on campus for carrying out their project work and for other research- related activities.

Earlier, Mr.C.Mhanoj, an alumnus of B.E. Mechanical Engineering (2019 Batch) and an Employee of Bajaj Auto Ltd., Pune shared several fruitful tips to emerge as a successful graduate and explained the strategies to get placement offers in core companies through a video footage. 'Peer-to-Peer Learning Method' was suggested to understand complex subjects like Mathematics III and IV.

Later, Vice-Principal Dr.G.Chandramohan motivated the students and stressed the importance of technical education in the present scenario and their roles as responsible citizens of the nation. Dr.R.S.Sankara Subramanian, Prof/Maths and coordinator of the event, Dr.M.Arun, Asso. Prof. of Civil Engg, Mr.P.Gajendran, Asst. Prof. of Mathematics, and Mr.N.SethuNarayanan, Asst. Prof. of English were also present in the event.



Orientation for Lateral Entry Students (Management Quota Category) held on 05th September 2020

NSS Day

PSG Institute of Technology and Applied Research in association with National Service Scheme (NSS) Unit observed 52nd NSS Day on 24th September 2020. Ms. T.Akshara, B.E. ECE (Second Year) and NSS Volunteer, kick started the event with a prayer song. Dr. G.Chandramohan, Vice-Principal, PSG iTech, delivered the welcome address. During his address, he recounted the historical significance of NSS Day and advised the young students to offer selfless service for the society. In addition, students were asked to equip their technical and soft skills through various online learning platforms like Coursera.

Dr. M. Yuvaraju, Regional Programme Co-ordinator for NSS, YRC and RRC, Anna University Regional Campus, Coimbatore served as the Chief Guest and addressed the Student Volunteers. While addressing the student volunteers, he thanked the Principal and Vice-Principal for their instrumental role in supporting each and every endeavour organized by the regional chapter.

Also, he emphasized the transformative power of NSS in shaping the personality of future citizens and lauded the service offered by the NSS Unit of Anna University, which consists of 44,500 volunteers. Also, students were advised to respect and learn from their teachers.

In addition, Dr M Yuvaraj shared his experience of meeting real-life heroes Marry Kom and Arunima Sinha, and stressed the importance of self-motivation and self-confidence.

Besides, he spoke the struggles faced by great personalities like the football player Ronaldo, business tycoon Jack Ma, and co-founder of WhatsApp Jan Koum in their early life. Students were insisted to inculcate good thought and set right attitude to succeed in their personal and professional life.

Later, Mr.B.Akash, student of Third Year B.E. ECE, introduced the office-bearers for the year 2020-2021. Dr.R.Ravikumar, NSS Officer and Asst. Professor, Dept. of Humanities, proposed the vote of thanks. Dr.P. Chinnaraj, Asst. Professor (Sr.G) and NSS Programme Officer co-ordinated the session.



Coordinators of the event along with Dr.G.Chandramohan, Vice-Principal, PSG iTech during NSS Day celebration held on 24th September 2020

First Research Seminar

PSG Institute of Technology and Applied Research, Coimbatore in collaboration with the Institution of Engineers (India) [IEI] organized a Research Seminar on 28th September 2020 in the college premises. Around 27 senior members of faculty from various departments participated in the research seminar. Dr P Subbaraj, Dean (Research-Electrical Sciences), welcomed the participants. He made a presentation listing all the agencies, which fund research projects.

In the first session, Dr.P.V.Mohanram, Principal, made an insightful presentation on "Applying for Funded Projects: A Sample Preparation". Before the commencement of the session, the need to explore and experience the innate consciousness of every individual was emphasized by one of the songs penned by Thayumanavar, a famous Tamil philosopher and saint. The first session was divided into three sections such as Industry-Institute Interaction Strategies, Research and Development Work Strategies and a Sample DST project presentation that was approved for funding in 2010.

During the session, members of faculty were encouraged to involve in industry-relevant projects and engage in dialogue with industry experts for collaborative project works. Also the following points were emphasized:

- The need for electrically-driven equipments and developing control systems based on latest technologies like Machine Learning (ML), Artificial Intelligence (AI), Internet of Things (IoT) was stressed to uplift the research profile of the institution. Later, participants were requested to contemplate on the action plan for continuing the research work in their area.
- They were sensitized on step-by-step method of developing in-house technologies for addressing the challenges faced by the industries and societies, in general.
- It was also suggested to organize project contests for school students to instill research interests.

Besides, the importance of doing ground-level study and demonstrative capability to share the complete research design were also emphasized during the presentation. For enhancing the quality of project presentation, participants were suggested to prepare a detailed and animated block-diagrammatic representation along with a working model.

Conduct of periodic review meetings along with development work was recommended and researchers were strongly advised to conduct reliability test of critical components pertaining to the development work without fail. In addition, finding an industry partner for effective development and marketability of products was insisted for effective outcome of the product. Finally, the session was concluded with some fruitful strategies like flexibility and credibility in preparing the budget and other technical data related to the project.

In the second session entitled "Innovation and Patent Filing", Prof.M.Alagar, Visiting Research Consultant (Chemistry), spoke about the three important components of leading a successful life from *Thirukkural*: gaining knowledge, material life, and enjoying a peaceful life. At the outset, the distinction between innovation and invention was discussed with a technical example. He also stressed about the importance of patent filing and product development with novel ideas, which are complementary in nature. The roles and responsibilities of an effective teacher, especially mentoring, were also discussed. Citations, h-indexes, and impact factor, which are considered to be the three important components that defines the quality of academic institution, was underscored. Also, participants were motivated to inculcate different thinking skills that are required for doing effective research.

Further, the members of faculty were suggested to understand the holistic process in developing and patenting a product successfully in the market. Few other essential qualities required for a researcher like dedication and devotion were also discussed briefly in the presentation. In addition to steadfast commitment, researchers were encouraged develop the spirit of questioning for achieving the desired research outcomes. Two of his current research projects, industrial waste utilization and solid waste management, were also briefly discussed during the presentation.

Finally, Dr G Chandramohan, Vice-Principal, shared his closing remarks and proposed the vote of thanks. In his address, the complementary role of science and engineering in developing technologies was briefed. Lastly, he thanked all the participants and appreciated the organizers for their efforts in organizing the research seminar.



Principal Dr PV Mohanram interacting with the participants on "Applying for Funded Projects: A Sample Preparation" during the first research seminar held on 28.9.2020



Prof.M.Alagar, Visiting Research Consultant (Chemistry), addressing the participants on "Innovation and Patent Filing" during the first research seminar held on 28.9.2020

Review on Online Teaching and Learning Practices

The Center for Teaching-Learning Practices, PSG Institute of Technology and Applied Research, organized a meeting with the members of faculty on 29th September 2020. Significant observations were made during the review of virtual lectures conducted in the last two months. The meeting was organized with an intention to help the teaching fraternity in effective planning and delivery of contents through online.

The members of the advisory committee, consisted of Dr.P.V.Mohanram, Principal, Dr.G.Chandramohan, Vice-Principal, Dr.P.Subbaraj, Dean (Research), and Dr K Balaji, Asst. Professor (Sl.G) of Chemistry, made a visit to respective departments and opened an interactive forum to address the challenges faced while teaching virtually. The following tips and techniques were suggested by the members of advisory committee, to empower the virtual teaching-learning process:

- Accommodate a few in-presence learners, to create a lively classroom ecosystem
- Use green boards instead of white boards, to avoid reflection of lights
- Ask questions frequently to ensure the effectiveness of teaching and learning (Why, What & How)
- Facilitate the teaching-learning, with adequate examples and exercises
- Make an interactive presentation and encourage healthy discussions
- Ask thoughtful questions and develop thinking skills among students
- Request students to share their notes/exercises during teaching session itself
- Plan for flipped classroom teaching strategy in order to accelerate the syllabus completion
- Share the best assignments with all the students in the virtual mode
- Display and demonstrate the hardware components of an experiment
- Discuss the topics in detail with specificity to ensure in-depth understanding
- Employ cameras (at least two) to create a real-time class experience
- Make the students learn in the class hour itself
- Arrange to turn on the video of selected student volunteers throughout the session
- Use less text in PPTs, font size, mimimum '24' in Times New Roman to be used
- Use error-free language in communication
- Consider Chrome Tab for playing videos for better audio quality
- Use noise-free headsets during teaching for enhanced audio of student responses
- Utilize the Wacom tablets, Elmo projector etc.,. for effective writing during the online classes
- Avoid sharing scanned materials from text books
- Create an inclusive and engaging learning ecosystem
- Use annotations, markings, and underlining (wherever required) in PPTs using appropriate tools in the system
- Maintain a professional gesture, in every aspect of teaching
- Refrain from colloquial language during content delivery
- Ensure standing posture throughout the session, to relish the classroom teaching experience effectively
- Be open for a dialogue with the administration for overcoming any difficulties
- Formulate and try to solve simple problems prior to generalizations for better understanding

Finally, the members of the advisory committee encouraged the facilitators to explore various other techniques and technologies like Open Broadcasting Studio (OBS) to offer holistic learning experience for the remote learners. Also, they were requested to meet the Vice- Principal, Dr G Chandramohan, with self-evaluation checklist to contemplate on their individual teaching styles.



Dr. P.V. Mohanram, Principal, interacted with the members of faculty, Dept. of CSE during the review meeting on Online Teaching on 29th September 2020 in CSE Dept. Seminar Hall



Dr.G.Chandramohan, Vice-Principal, addressed the members of faculty in the Dept. of Computer Science and Engineering on 29th September 2020

Online Webinar on "Enhancing Teaching-Learning Skills in Online Mode"

The Centre for Teaching-Learning Practices in association with Indian Society for Technical Education (ISTE) organized a Webinar on "Enhancing Teaching-Learning Skills in Online Mode" on 14th July 2020 to PSG iTech faculty members. In the first session, online demonstration of conducting laboratory classes was collaboratively explained by Dr R Ramesh, Professor / Mechanical and Mr P Balakumar, Assistant Professor (Sr.Gr) / Civil.



Dr R Ramesh, Professor/Mechanical Engineering demonstrated Hooke's law experiment

In the second session, 6 faculty members shared their learnings about teaching-learning practices in Coursera with other participants through online mode. Faculty members felt that the webinar was very much useful to build their teaching career. Totally, 84 faculty members participated in the online webinar. The webinar was co-ordinated by Dr. K. Balaji, AP (Sl.Gr)/Chemistry.



Organizing team of an Online Webinar on the topic "Enhancing Teaching-Learning Skills" held on 14th July 2020

Review of Progress of Work in Research Laboratories

The committee consists of Dr. P. Subbaraj (Dean – Research – Electrical Sciences)/Convener, Dr. S. Jayakumar/Internal Expert and Dr. A. Kandaswamy/External Expert, reviewed the progress of research work in six research laboratories in all departments and the utilization of research funds received (external/internal) for research laboratories as on 24th October 2020. Respective research laboratory faculty in-charges presented their progress of work in their research laboratories in-terms of new products developed, patents filed, research articles published, consultancy work undertaken, external projects sanctioned and action plan for the next one year. The committee members appreciated the accomplishments and progress of research work in all research laboratories and gave their valuable inputs/suggestions for the future.



Prof. M. Alagar, Visiting Research Consultant and his team member, Dr. A. Hariharan demonstrated the developed products in-front of the panel of experts (Committee members from left to right: Dr. Dr. A. Kandaswamy, Dr. S. Jayakumar, Dr. P. Subbaraj, Dr. G. Chandramohan, Dr. P.V. Mohanram)

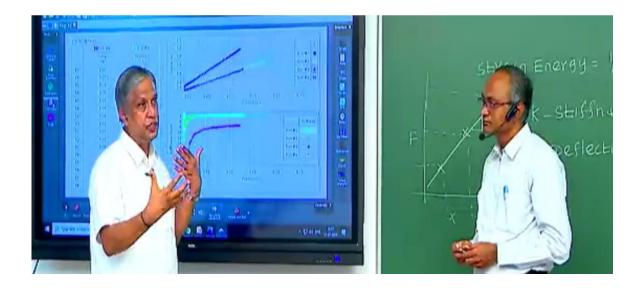
Virtual Sessions handled –PSG CARE

Online Webinar on "Conduct of Online Laboratory Classes – A Demo"

An online session on the topic "Conduct of Online Laboratory Classes – A Demo", in association with PSG CARE was conducted by Centre for Teaching Learning Practices, PSG iTech on 21st July 2020. The sessions were conducted through the online platform Google Meet. The session was inaugurated by Dr.R.Rudramoorthy, Director, PSG CARE and the session was handled by Dr.P.V.Mohanram, Principal, Dr.R.Ramesh, Professor, Mechanical Engineering and Mr.P.Balakumar, Assistant Professor, Civil Engineering of PSG iTech. The participants were briefed on the method of handling live online laboratory sessions and the various resources required. The participants were also demonstrated the use of various online assessment tools like Google form, Pollmaker, etc. for the conduct of effective assessment for online laboratory sessions. The Session was attended by 190 faculty participants from various PSG Institutions.



Brochure of the event



An online session on the topic "Conduct of Online Laboratory Classes – A Demo" on 21st July 2020 by Dr.P.V.Mohanram, Principal and Dr.R.Ramesh, Professor, Mechanical Engineering

Online Session on "Effective Methods of Handling Online Classes"

PSG Center for Academic Research and Excellence (CARE), Coimbatore organized two online sessions on "Effective and efficient ways of Handling Online Classes" on 17th and 31st July 2020. Dr.R.Rudramoorthy, Director, PSG CARE, offered his felicitations and inaugurated the session. Dr.G.Chandramohan, Vice-Principal, PSG iTech addressed the participants on "Effective Methods of Handling Online Classes". About 172 participants attended the first session held on 17th July 2020 and 112 participants attended the second session on 31st July 2020. Participants from various schools and colleges of PSG Institutions attended the event. The sessions were conducted through Google Meet, an online platform. Various tools available for facilitating online classes like Google Meet, Google Form, Google Calendar, Google Drive, Google Classroom, Poll-maker, Vizia, etc were briefed during the session. Also, the use of ELMO projector was demonstrated for effectively conducting online classes.



Dr G Chandramohan, Vice-Principal, delivered an online lecture on "Effective and efficient ways of handling online classes" on 31st July 2020

Virtual Session on Online Teaching and Assessments

PSG Center for Academic Research and Excellence (CARE), Coimbatore has organized a five-day workshop on "Effective Teaching Techniques for Online Teaching" for the teaching fraternity in PSG Schools from 21st to 25th September 2020. Dr. G Chandramohan, Vice Principal, PSG Institute of Technology and Applied Research, Neelambur, Coimbatore delivered a virtual session on "Online Teaching and Assessments" on 23rd September 2020. Dr. R. Rudramoorthy, Director, PSG CARE welcomed the participants. The session focused on Five Pillars for Online Teaching and Assessment, Effective Engagement of Students, Importance of Peer Assessment, Efficacious Utilization of Google Forms and Vizia Software.

The session was interactive, informative and offered hands on training for the participants on various tools and platforms available for teachers for conducting effective classes Around 200 teachers from various schools of PSG Institutions attended the session along with two in-person learners from PSG I-Tech. During the above session, the need for effective and efficient teaching and learning was emphasized through an interesting anecdote. Later, participants were introduced to various activities like conducting quizzes, peer-assessments, and reviewing process. Some of the best practices followed in PSG iTech like knowledge enrichment through Coursera, National Programme on Technology Enhanced Learning (NPTEL), and SWAYAM were highlighted.

The participants were encouraged to complete at least one online course to understand the international standard set by the leading universities across the world on teaching and learning. Finally, the presentation concluded with a Ted Talk Video on "What Leads to Success?" by Richard St. John. Finally, Dr. R Deepa, Chief Coordinator, PSG CARE proposed the vote of thanks.



Dr. G.Chandramohan and Mr.V.Navin Ganesh, Asst. Prof, Dept.Civil Engineering, are facilitating a workshop for the teachers of PSG Schools, Coimbatore, held on 23rd September 2020

Virtual Session on Conduct of Online Laboratory Classes: A Demo for School Teacher

Dr. P V Mohanram, Principal, PSG iTech facilitated a virtual session on "Conduct of Online Laboratory Classes: A Demo for School Teacher" on 24th Sept. 2020 along with Mr.P.Balakumar and Mr.V.Navin Ganesh, Asst. Professors (Senior Grade), Dept. of Civil Engineering. Dr. R. Rudramoorthy, Director, PSG CARE welcomed the participants and introduced the resource person. Before the commencement of the session, various challenges faced by the teachers, especially for lab, were identified through an online survey and the same were addressed.

Some of the major challenges identified in conducting online lab sessions were Effective Engagement of Students, Access to Monitoring Student Exercises and Audio-Visual Feedback from the Learners. During the session, various fruitful strategies were deliberated for the participants to tackle the challenges like:

- Effective Use of Cameras for Demonstration
- Allowing Limited-in-person Learners
- Few Virtual Learners and Receiving Regular Acknowledgement from the Learners
- Stable Network Connection
- Use of Speakers to Listen to the Learner's Ideas Instantaneously
- Dummy Screen to know what is being presented on Screen.
- Open Broadcast Studio, an online streaming and recording software, was recommended for effective conduct of lab session.

In addition, a demonstration on Hooke's Law was presented to the audience with step-by-step guidance. Besides demonstration, lab facilitators were requested to employ a combination of various other teaching techniques like use of suitable videos, quizzes and polls to cater to the needs of different learners. Teachers were asked to help the students to think rather than rote memorization and apply the concepts learned in various other platforms for holistic learning. Around 157 teachers from PSG Schools attended the session along with in-person learners from PSG iTech. Finally, Dr. R Deepa, Chief Coordinator, PSG CARE proposed the vote of thanks.



Dr. P.V.Mohanram, Principal, and Mr.P.Balakumar, Asst. Prof address the challenges faced by the teachers during the conduct of online lab session, as part of their presentation on "Conduct of Online Laboratory Classes: A Demo for School Teachers" held on 24th September 2020



In-Person Learners (Faculty) from various departments of PSG iTech attending the Live Session



Mr.Navin Ganesh, Asst. Prof along with Dr. P.V.Mohanram facilitating the session

Webinars/FDPs/Workshops Organized

Dept. of Library-Webinar on IEEE Xplore Digital Library

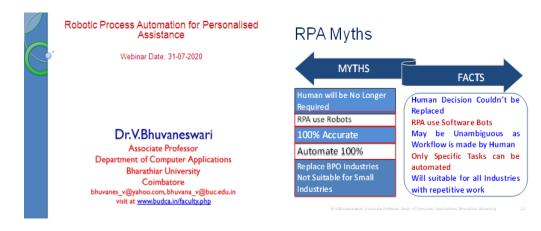
The Dept. of Library, PSG iTech, organized a webinar on "IEEE *Xplore* Digital Library Training" on 16th July 2020. Dr.V.Krishnamurthy, Librarian, PSG iTech, welcomed the gathering and introduced the resource person Mr.Nanda Lal TS, Senior Training Manager - South India EBSCO Information Services & IEEE *Xplore* Digital Library. Around seventy participants attended the webinar from different locations. Mr.Nanda Lal TS, made an insightful and interactive presentation on IEEE *Xplore* Digital Library. He shed light on IEEE *Xplore* Digital Library, simple and advanced search methods, single and bulk downloads, importance of article reference, and article metrics. The session was informative and well-received by the participants.



Webinar on IEEE Xplore Digital Library held on 16th July 2020

Webinar on Robotic Process Automation (RPA) for Personalised Assistance

A Webinar on "Robotic Process Automation for Personalised Assistance" was organized by the Dept. of Library, PSG iTech, on 31st July 2020. Dr.V.Krishnamurthy, Librarian, PSG iTech, introduced the resource person Dr.V.Bhuvaneswari, Associate Professor, Dept. of Computer Application, Bharathiar University, Coimbatore. About fifty participants from various disciplines actively participated and gained fresh insights. Dr.V.Bhuvaneswari made a detailed presentation with some real-time examples. During her presentation, she explained how RPA helps to improve error-free work and reduces the task processing time. The session was well-received by the participants.



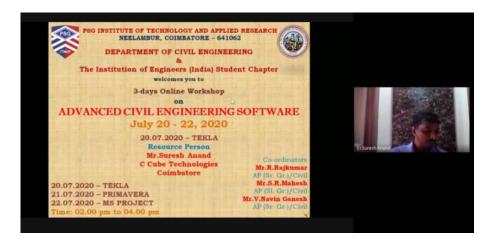
Webinar on "Robotic Process Automation for Personalised Assistance" held on 31st July 2020

Dept. of Civil Engineering

Workshop on "Advanced Civil Engineering Software"

The Dept. of Civil Engineering, PSG iTech, conducted a three-day online workshop on "Advanced Civil Engineering Software" during 20th-22nd July 2020. The technical session was facilitated by Er.P.Suresh Anand and Er.K.Saravana Kumar from C Cube Technologies, Coimbatore. During the session, some of the basic concepts in advanced civil engineering softwares like Tekla, Primavera and MS Project were explained in detail.

About eighty participants from across the country, including undergraduate and postgraduate students of Civil Engineering, members of faculty and industry professionals, participated in the workshop. The workshop was coordinated by Mr.S.R.Mahesh, Mr.R.Rajkumar and Mr.V.Navin Ganesh, Asst. Professors, Dept. of Civil Engineering, PSG iTech.



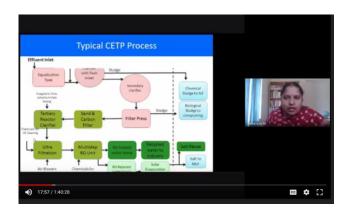
Er.P.Suresh Anand, C Cube Technologies, Coimbatore facilitating a workshop on "Advanced Civil Engineering Software" on 20th July 2020

Online FDP on "Integrated Urban Water & Wastewater Management"

The Dept. of Civil Engineering, PSG iTech, conducted a five-day online FDP on "Integrated Urban Water & Wastewater Management" during 27th- 31stJuly 2020. About 250 participants across the country including members of faculty, research scholars, industry professionals and postgraduate students, attended the program. Latest advancements in the field of Water and Wastewater Treatment were deliberated during the sessions. The technical sessions were facilitated by Dr.K.Sri Bala Kameswari, Senior Principal Scientist CSIR-CLRI, Chennai; Dr.Harold Leverenz, Research Engineer, UC-Davis, California, US; Dr.Praveena Gangadharan, Asst. Professor of Civil Engineering, IIT Palakkad, Kerala; Dr.N.Ramsundram, Associate Prof and Head, Dept. of Civil Engineering, KCT, Coimbatore; and Dr.M.Devasena, Associate Professor of Civil Engineering, PSG iTech, Coimbatore. The program was coordinated by Dr.M.Devasena, Associate Professor, Ms.D.Pricilla, and Ms.V.Selvapriya, Asst. Professors, Dept. of Civil Engineering.



FDP Brochure



Dr.M.Devasena, Asso Prof. of Civil Engg delivers a lecture on "Integrated Urban Water & Wastewater Management"

"Engineers Day -2020"

Commemorating the birth anniversary of Sir Mokshagundam Vishveswaraya, students and members of faculty in the Dept. of Civil Engineering celebrated the "Engineers Day-2020" on 15th September 2020. A short video, explaining his significant contributions, was screened as a tribute. A webinar on "Employment Opportunities for Civil Engineers in IT Sector" was organized. Dr.M.I.Abdul Aleem, Professor and Head, Dept. of Civil Engineering, welcomed the gathering. Er.Ramasamy Murugan, Program Manager IBM, Bangalore delivered the keynote address. Mr. P. Balakumar, Asst. Professor, Dept. of Civil Engineering, proposed the vote of thanks.

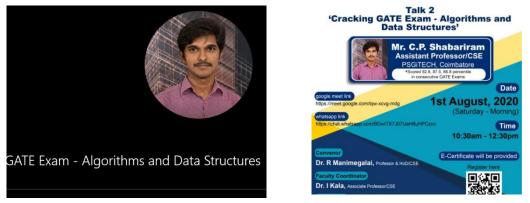


Er. Ramasamy Murugan delivered the Keynote Address during Engineers Day Celebration held on 15th September 2020

Dept. of Computer Science and Engineering

Talk on "Cracking GATE Exam - Algorithms and Data Structures"

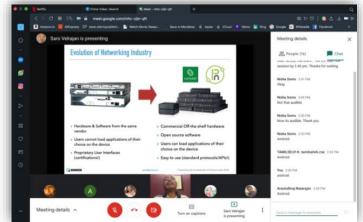
The Dept. of Computer Science and Engineering, PSG iTech in association with The Institution of Engineers (India) PSGI Students' Chapter organized a talk on "Cracking GATE Exam - Algorithms and Data Structures" on 1st August 2020. Mr C. P. Shabariram, Asst. Professor, Dept. of CSE, PSGiTech, Coimbatore, who has consequently scored 92.8, 87.5, and 86.8 percentile, shared his rich experience, some productive strategies for GATE preparation (CS), and key approaches to solve GATE Questions. Also, he shared some basic concepts in Data Structures and Algorithms from the previous year question papers. About 354 participants, comprising students and members of faculty, participated and discussed their doubts.



Mr C. P. Shabariram, Asst. Professor, Dept. of CSE delivered a lecture on "Cracking GATE Exam - Algorithms and Data Structures" on 1st August 2020

Webinar on "Overview of Software Defined Networks"

A webinar on "Overview of Software Defined Networks" was organized by the Dept. of CSE on 10th July 2020 through the online platform, Google Meet. About 20 participants from various technical institutes across Tamilnadu attended the session. Dr A C Sumathi, Asst. Professor (Sl. Gr.), Dept. of CSE, PSG iTech welcomed the gathering and introduced the resource person Mr. Saro Velrajan, Chief Strategy Officer, Ginkos India, Chennai. During his address, the resource person spoke about some latest ideas about software-defined networking (SDN) requirements and offered some insights on control plane and data plane in Network function virtualization (NFV). The session was vibrant and interactive with mind-blowing questions.



Mr Saro Velrajan explaining about networking switches in the webinar and the responses of the participants during the webinar on "Overview of Software Defined Networks" held on 10th July 2020

Talk on "Effective Preparation for Civil Service (IAS/IPS/IFS/IRS) Exams"

A special lecture on "Effective Preparation for Civil Service (IAS/IPS/IFS/IRS) Exams" was organized by the Dept. of Computer Science and Engineering on 11thJuly 2020 in association with Shankar IAS Academy & the Institution of Engineers (India) PSGI Students' Chapter. Dr M Ravi, IPS, Additional DGP, Special Task Force, Erode, Tamilnadu addressed the IPS aspirants on effective preparation method for Civil Service exams and shared some fruitful tips to emerge as an IPS officer. About 600 participants, consisting of students from various colleges and members of faculty, participated in the event. Several doubts were addressed during the interaction and the event was well-received by the participants. The event was organized through Zoom, an online platform. An ecertificate was sent to all the participants, who remained active throughout the session.



Dr M Ravi IPS-Additional DGP, Special Task Force, Erode and the organizers during the session on "Effective Preparation for Civil Service Exam" held on 11th July 2020

Webinar on Parallel Computing using GPU Processors

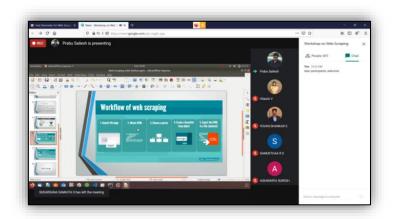
A Webinar on "Parallel Computing using GPU Processors" was organized by the Dept. of CSE on 11th July 2020 through the online platform, Google Meet. About 20 students from the Second and Third year B.E. CSE attended the session. Dr A C Sumathi, Asst. Professor (Sl. Gr.), Dept. of CSE, PSG iTech, welcomed the gathering. Dr K Amshakala, Associate Professor, CIT, Coimbatore graced the occasion and served as a resource person. In her address, the participants were explained about the parallel processing concepts using exciting real-time examples. Her speech contained fascinating insights on architecture and Graphical Processing Unit (GPU) and briefed about the working principles of the NVIDIA processor. Also, she highlighted the distinction between GPU and Central Processing (CPU) units. The presentation was stimulating and interactive with lots of interesting questions.



Dr Amshakala, Associate Professor, CIT explaining parallel computing during the webinar held on 11th July 2020

Online Workshop on "Web Scraping using Python"

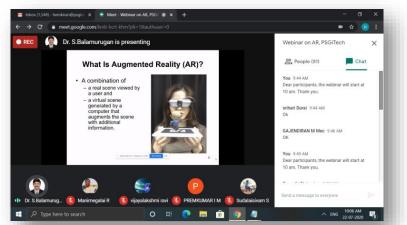
The Dept. of Computer Science and Engineering, PSG iTech in association with Indian Society for Technical Education (ISTE) Students' Chapter (TN 366) organized a one-day online workshop on "Web Scraping using Python" on 18th July 2020. Mr Sailesh Chandrasekaran, Software Developer, Tata Consultancy Services, Chennai facilitated the session. About 90 students from various institutions across Tamilnadu attended the session through the online platform, Google Meet. Dr. R. Manimegalai, Professor and Head, Dept. of CSE, PSG iTech inaugurated the workshop. At the end of the workshop, a self-assessment was conducted through Google Forms. The event was organized by Ms.V.Vilasini and Ms. K. Lakshmi Kalpana Roy, Asst. Professors (Sr. Gr.), Dept. of CSE, PSG iTech.



Hands on Workshop on "Web Scraping using Python" was facilitated by Mr Sailesh Chandrasekaran, Software Developer, Tata Consultancy Services, Chennai on 18th July 2020

Webinar on "Augmented Reality and its Industrial Applications"

A webinar on "Augmented Reality and its Industrial Applications" was conducted on 22nd July 2020 by the Dept. of Computer Science and Engineering, PSG iTech through the online platform, Google Meet. Dr.S.Balamurugan, Director (R&D), Intelligent Research Consultancy Services (iRCS), Coimbatore was the resource person for the webinar. The webinar intended to explore the Augmented Reality (AR) and its industrial applications. The resource person briefed about AR along with several other real-time applications. He explained the variations between AR and virtual reality (VR). The session concluded with a Q&A session. This webinar was coordinated by Ms.S.Hemkiran, Asst. Professor (Sr.Gr.), Dept. of CSE, PSG iTech.



Webinar on "Augmented Reality and its Industrial Applications" held on 22nd July 2020

Webinar on "Data Science in Industrial Applications"

The Dept. of CSE conducted a webinar on "Data Science in Industrial Applications" for the students and members of faculty on 25th July 2020.Dr. R. Manimegalai, Professor and Head, Dept. of CSE, delivered the welcome address. Mr. Adhitya Vigneshwar Padmanabhan, Project Coordinator, IBM India Ltd, Bengaluru deliberated on "Usage of IBM Tools" and Mr. Sanjay Balasubramaniam, L&T Thales services Ltd, Chennai made a presentation on "Data Extraction APIs in Data Science Applications". About 220 participants across India participated in the event. Mr. S. Thivaharan, Asst. Prof (Sl. Gr) and Dr. D. Sivaganasan, Professor, Dept. of CSE, PSG iTech coordinated the event.



Participant's interaction during the session on "Data Science in Industrial Application" held on 25th July 2020

FDP on "IoT"

The Dept. of CSE conducted a three-day online Faculty Development Program (FDP) in association with Computer Society of India (CSI) from 10th to 12th July 2020. About 352 participants across the world participated in the virtual FDP. The first session was facilitated by Mr.Venkat Subramanian, who is working as a Mozilla Rep, Singapore. During the session, he addressed on web of things (WoT), Web Socket and other recent trends in internet of things (IoT) with a demo on the steps to control and monitor devices over web using WoT. The second session was facilitated by Mr. M. Surya Prakash, Senior Robotics Engineer, Goldbell Group, Singapore. During the session, he deliberated on unmanned aerial vehicle (UAV) and flying mechanics, salient features of robot operating system (ROS) with a demo on application of robotics in agricultural fields and tunnels. The third session was facilitated by Mr Venkatesh Angalakurichi Ramaraj, Data Engineer, Woodbine Entertainment, Canada. The session explored various machine learning algorithms in Data science. Also, a demonstration was given on F1Score and principle components analysis (PCA) in identifying quality images in various real-life situations.



Mr. M. Surya Prakash, Senior Robotics Engineer, Goldbell Group, Singapore explained the UAV during the webinar held on 10th July 2020

Online International Workshop on "Cyber Security"

The Dept. of Computer Science and Engineering conducted a three-day online international workshop on "Cyber Security" in association with Computer Society of India (CSI) during 18th-20th July 2020. About 219 participants across the world participated in the workshop.

The first session was facilitated by Mr Balaji Ravi, Senior Security Solutions Specialist, PCCW Solutions, Singapore. Basics of Cloud Computing were explained during the session. Also, distinction between cyber security and information security was deliberated in a clear and concise manner.

The second session was engaged by Dr. Vijanth Sagayan Asirvadam, Associate Professor, Dept. of EEE, Universiti Teknologi PETRONAS, Malaysia. He detailed the importance of embedding the cyber-security elements in industrial and process plant, and pointed out the differences between Internet of Things (IoT) and industrial IoT.

The third session was facilitated by Mr SP Vasanth Kumar, Security Lead, Infoziant IT Solutions LLC, St.Louis, USA. He explained about various vulnerabilities present in the real-time scenario and demonstrated the application of SQL injection tools in exploiting those vulnerabilities.

The fourth and final session was facilitated by Mr.Tony Caleb, CEO Infoziant IT Solutions LLC, St.Louis, USA. He demonstrated some real-time examples of using cyber security tools and briefed about some protective techniques of our machines without antivirus software. The workshop was listed in Mozilla international live event blog, which attracted many international participants.



Brochure of the Online International workshop on "Cyber Security" in association with Computer Society of India (CSI) held during 18th and 20th July 2020.

Dept. of ECE Webinar on "The Concept of Time"

A webinar on "The Concept of Time" was organized by the Dept. of ECE on 3rd July 2020. Mr. Bhagath Singh Karunakaran, CEO, Kalycito Infotech Pvt. Ltd., Coimbatore addressed the participants on "A Journey to Track Time". He highlighted some of the interesting and unknown engineering concepts behind some commonly known facts. He explained the terms like jitter, latency and skews; and discussed the 4th industrial revolution and time sensitive networks.

About 90 participants, comprising the members of faculty and students from different disciplines in PSG iTech, attended the webinar. The session was interactive and appreciative.Dr. P. Reba, Associate Professor, and Ms. N. Susithra, Asst Professor, Dept. of ECE, PSG iTech coordinated the session.



Event Brochure - A webinar on "The Concept of Time" held on 3rd July 2020

Online Webinar on "VLSI SoC Design using Open source EDA tools"

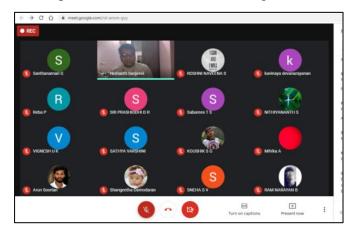
The Dept. of ECE organized a webinar on "VLSI SoC Design using Open Source EDA tools" on 4th July 2020. Mr.M.Kunal Ghosh, Director and Co-founder of VSD Corporation Pvt. Ltd, Bangalore served as the resource person. Package view of chips, how a chip is interconnected with the package, hardware IPs were illustrated during the webinar. A demo on open source tools like Yosys, GrayWolf, Repalce, and TrironCTS were carried out for the design and implementation of serial peripheral interface integrated circuits. The design parameters like area, power and timing had been simulated and a layout was created during the session. About 73 participants attended the event and got benefitted. Dr.M.Jayasanthi, Associate Professor and Mr.K.Paldurai, Asst. Prof (Sr.Gr.), Dept. of ECE were the co-ordinators of this programme.



Webinar on "VLSI SoC Design using Open source EDA tools" held on 4th July 2020

Alumni Webinar Series

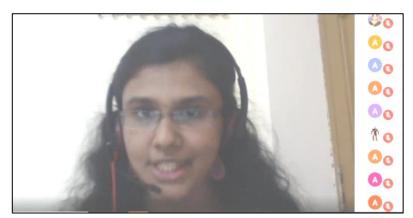
The Dept. of ECE organized a series of webinars facilitated by the distinguished alumni of PSG iTech during 6^{th} -7th July 2020. Mr Nishanth Sanjeevi, an alumnus of B.E. ECE (2015 – 2019) facilitated the first session on 6^{th} July 2020. About 100 participants from various branches of the PSG iTech B.E. ECE, B.E. EEE attended the session. The topic was entitled as "The Transformation from Student to a Professional". Some of the vital points discussed were: usage of emails for professional communication, importance of teamwork, interpersonal skills, and punctuality. Students were advised to follow the professional qualities, practise experimentations and explore novel ideas through their projects. The mantra for success, according to the speaker, is: "If something needs to be done, it has to be done". He also shared about his rich work experience at Microsoft and his significant contributions to Surface Pro.



Participants are attending the Webinar by Mr S Nishanth held on 6th July 2020

Ms.Srreenandhini, Qualcomm, an alumna of B.E. ECE (2014-18 Batch) facilitated the second day session on 7th July 2020. She is well-known for her excellent communication and managerial skills during his collegiate days. She has been serving in Qualcomm for about two years and her focus is Silicon Validation. She delivered a motivational talk on "Elixir of Victory". About 90 participants from various disciplines at PSG iTech attended the event.

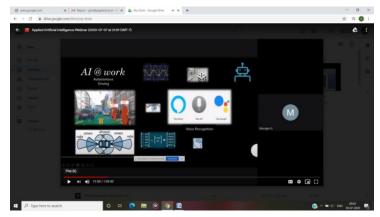
She discussed several pivotal qualities required to emerge as a successful person like leadership, self-respect, hard work and team coordination. She also highlighted some inspiring personalities, whom she admired in her life such as the 2014 Noble Prize winner for peace Ms. Malala Yousafzai. Her session was energetic and filled with thought-provoking questions, and vibrant discussions.



Ms.Srreenandhini, delivering the webinar on the title "Elixir of Victory" held on 7th July 2020

National Webinar on "Applied Artificial Intelligence"

A webinar on "Applied Artificial Intelligence" was organized by the Dept. of Electronics and Communication Engineering on 8th July 2020. Members of faculty and students from PSG iTech and various other institutions in Coimbatore region also joined via Google Meet. About 140 participants attended the webinar. Dr P. Vetrivelan, Associate Professor and Head (in-charge), Dept. of ECE, welcomed the gathering. Dr G Santhanamari, Associate Professor, Dept. of ECE, introduced the resource person Mr Murugan, Chief Technology officer, NI Drive, Tokyo. The session commenced with an introduction to artificial intelligence (AI) and concepts in machine learning (ML) and deep learning (DL). He demonstrated the development of regression model from Celsius to Fahrenheit temperature conversion in addition to AI ecosystem and shared the tools and libraries employed.



A glimpse of webinar on "Applied Artificial Intelligence" held on 8th July 2020

Journey towards Industry 4.0

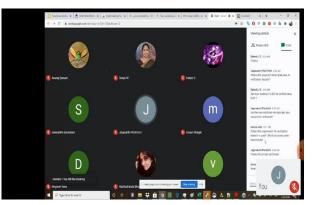
A webinar on "Journey towards Industry 4.0" was organised jointly by the Dept. of ECE and the Indian Society for Technical Education (ISTE) Students Chapter on 15th July 2020 through the online platform, Google Meet. About 115 participants from various institutions attended this event benefitted. Mr.A.Sreeram, Head – Automation & Drives, Siemens Limited, Coimbatore, delivered the keynote address. Some of the significant points discussed include: industrial revolution from 1.0 to 4.0, digital transformation ideas, challenges in industry sector, mind sphere applications, technologies required for digitalization like industrial IoT, artificial intelligence, machine learning, cyber security and big data. The webinar provided an idea of digital transformation required to familiarize industry 4.0 and was well-received. Ms.M.Sowmiya and Ms.A.K.Kowsalyadevi, Asst. Professors, Dept. of ECE coordinated the session.



One of the slides presented during the session on "Journey towards Industry 4.0" held on 15th July 2020

Online Webinar on Functional Verification of Complex SoC designs using UVM

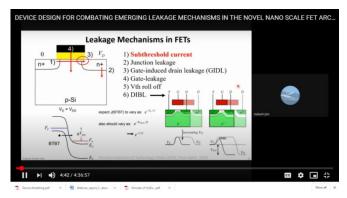
The Dept. of ECE organized a webinar on "Functional Verification of Complex SoC designs using UVM" on 20th July 2020. Mr.Renif Lal Ebinezar, R&D Division, ASIC/FPGA Design Validation Engineer, Nokia, Belgium served as the resource person. Some basics concepts in universal verification methodology (UVM), its frameworks, different phases and classes in UVM were explained during the webinar. Particularly, SoC verification interested the participants. Also, verification of processor IPs with bare-metal Code in UVM was discussed. This webinar has provided fresh insights on verification field. Totally 92 participants attended the event and got benefitted. Dr.M.Jayasanthi, Associate Professor, and Ms.M.Deepa, Asst. Professor (Sr.Gr.), Dept. of ECE were the co-coordinators of this programme.



A glimpse of the participants during the online webinar held on 20th July 2020

Webinar on "Device Design for Combating Emerging Leakage Mechanisms in the Novel Nano scale FET Architectures"

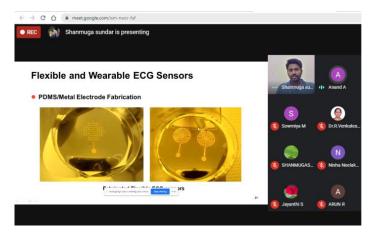
A webinar on "Device Design for Combating Emerging Leakage Mechanisms in the Novel Nanoscale FET Architectures" was organised jointly by the Dept. of ECE and The Institution of Electronics and Telecommunication Engineers (IETE) on 24th July 2020 using the online platform, Google Meet. Dr.A.K.Jain, Postdoctoral Research Fellow, National University of Singapore graced the occasion as the resource person. Some of the key points discussed were: role of process technology and barriers to scaling, emerging substitutes for conventional Boltzmann FETs, dominant leakage mechanism, SOI BOX engineering, gate engineering and extension region engineering. The webinar provided an idea of device design for combating emerging leakage mechanisms in nanoscale level. About 85 participants from various institutions participated and benefitted. Mr.A.Anand, Asst. Professor (Sr.Gr), Dr.G.Santhanamari Associate Professor, and Ms.M.Deepa, Asst. Professor (Sr.Gr), Dept. of ECE coordinated the event.



Resource Person sharing the views of Device designs for combating emerging leakage mechanisms in the novel nanoscale FET architectures on 24th July 2020

Webinar on "Wearable Electronics: Technology and Challenges"

A webinar on "Wearable Electronics: Technology and Challenges" was organised jointly by the Dept. of ECE and IETE on 30th July 2020 via online platform, Google Meet. About 100 participants from various institutes participated and benefited from the webinar. Dr.Shanmuga Sundar Dhanabalan, Postdoctoral Research Fellow, Functional Materials and Microsystems Research Group, RMIT University, Australia, facilitated the session. The resource person thrown light on flexible and wearable electronics, flexible substrate – materials and methods used for Fabrication, wearable ECG sensors made up of flexible materials, SMDs and pulse oximeter. Mr.A.Anand, Ms.M.Deepa, and Ms.M.Sowmiya, Asst. Professors, Dept. of ECE, PSG iTech coordinated the session.



Resource Person sharing the Sensors made up of flexible materials held on 30th July 2020

International Webinar on "Semiconductor Devices & its Applications"

An International Webinar on "Semiconductor Devices & Its Applications" was jointly organized by the Institution of Engineers (India) PSGI-Students Chapter and the Dept. of Electronics and Communication Engineering on 15th August 2020 through the online platform, Google Meet. Dr. Balakumar Muniandi, Patent Engineer in JCIP, Taipei, Taiwan shared some insights on implementations of semiconductor devices and its applications. The webinar explored an in-depth understanding of the topics and was highly informative. Totally 41 students from various institutions attended the webinar and benefitted. Mr. M.Jothibasu, Asst. Prof, Ms.M.Deepa Asst. Professor (Sr.Gr) and Ms. D.Archana, Asst. Prof, Dept. of ECE, coordinated the event.

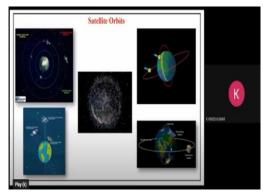


Turbo boost techniques & Control topology of TI

Dept. of EEE

Webinar on "Science and Technology behind Interplanetary Space Flights and Space Vehicles"

The Department of EEE in association with the IEEE Student Branch of PSGiTech jointly organized a Webinar on "Science and Technology behind Interplanetary Space Flights and Space Vehicles" on 18th July 2020 by Shri. K. Vinod Kumar, Senior Scientist, National Aerospace Laboratories, Bengaluru. With keen interest to understand the Origin and Evolution of the Universe, the guest speaker has explored Modern Physics for more than eight years and has compiled some of the research work related to Cosmology & Evolution of Life. The speaker has taken the audience a virtual tour to the outer space bringing in front the magnificent view of the entire solar system. The importance of satellite based technology in daily lives and military warfare was highlighted. The speaker then discussed some of the challenging issues and potential research areas for the young people to pursue in space flights and discussed the career opportunities in the same.



Webinar on "Science and Technology behind Interplanetary Space Flights and Space Vehicles" held on 18th July 2020

Dept. of Mechanical Engineering

Online Lecture on "Manufacturing: Challenges and Excitements"

The Dept. of Mechanical Engineering in association with The Institution of Engineers (India) organized a special lecture on "Manufacturing Challenges and Excitements" on 11th September 2020. Dr.V.Rajkumar welcomed the distinguished speaker Dr. Nithayanandan Devaraaj, Executive Director, Amex Alloys Pvt. Ltd. About 10 members of faculty and 60 students attended the online session. The speaker stressed the importance of manufacturing in the current scenario and its effect on the GDP. Also, he emphasized the importance of the Japanese concepts like TPS, Lean, KANBAN, Just-in-time (JIT) manufacturing and their effect on manufacturing and supply chain. He quoted some examples for JIT and SBC techniques. Dr.G.Chandramohan, Vice-Principal, proposed the vote of thanks.



Special Lecture on "Manufacturing: Challenges and excitements" by Dr. Nithayanandan Devaraaj ED, Amex Alloys Pvt Ltd. held on 11th September 2020