2021 CRIL

IEEE INDIA





Dr. K.R.Suresh NairChair, IEEE India Council 2021

Dear Readers,

Warm greetings from the IEEE India Council. Thank you for being a part of this editorial initiative. My humble appreciation and acknowledgement to the Vice-Chairs, Chairs and all volunteers for having actively engaged in the activities even in those utterly testing times. All the life members and student members are enthusiastically organizing vibrant events ranging from webinars to charchas to hackathons. The quarter also saw the events going from completely online to hybrid mode of conduct and I am sure this will contribute to the added IEEE member benefits. This new approach to keep the community active is heartwarming.

The IEEE India Council is organizing its flagship event and conference i.e. All India Students Young Professionals Women in Engineering Life members Congress (AISYWLC'21), and INDICON 2021 in hybrid mode this year. Both these events have brought in breathtaking personalities and empowered the people to grow. With my heartfelt wishes, I wish nothing but the best for all the volunteers.

The India Council Newsletter team has come up with another edition, and it's filled with many interesting articles, information regarding awards, and event reporting. I congratulate the efforts taken by the India Council Newsletter Team for their tremendous efforts to bring this edition to you and connect all of you together virtually.

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Disseminating Light

The year 2021 has had a shaky start, we've had a tough first few months due to the second wave of the covid pandemic as daily cases averaged to about 2-3 Lakhs and daily deaths for about 2k-3k during the peak of the pandemic. With vaccinations picking up we have equipped ourselves to fight for any further waves. It is a matter of great pride for us as Indians that a indegnious vaccine made in India has attained global approval which proves india's scientific temper and capability. As we come out of the gloom and see brighter days ahead with things getting back to normal we have to remember to continue to follow covid appropriate behaviour and one has to get one's vaccine at their turn. This battle is not yet over but we are in a more comfortable position than we were a couple of months ago. This would not have been possible without the thousands of doctors and health care frontline workers who were at the epicenter of this battle. Let us hope to see brighter days as we go ahead.



R10 Best Membership Growth Award

Large: Kerala Section

IEEE R10 Humanitarian Technology Activities
Outstanding Section Award

Large: Kerala Section

IEEE R10 WIE Activities Awards

IEEE R10 WIE Outstanding Professional / Student Volunteer Award

Student: Virendra Pratap Singh (Delhi Section)

IEEE R10 WIE Outstanding Section/ Student Branch Affinity Group Award

Student Branch: VNR VJIET IEEE WIE Student Branch Affinity Group, Hyderabad Section

IEEE R10 Student Activities Committee Outstanding Student Branch Award

Silver Oak University IEEE Student Branch, Gujarat Section

IEEE R10 Student Activities Committee Outstanding Volunteer Award

Mallellu Sai Prashanth, Hyderabad Section

IEEE R10 Education ActivitiesOutstanding Group Award

Pune Section Education Society Chapter

IEEE R10 Education Activities Outstanding Volunteer Award

Mallellu Sai Prashanth, Hyderabad Section

IEEE R10 Life Member Outstanding Volunteer Award

Damodaran V. K. (Kerala Section)

IEEE R10 Young Professionals Outstanding Volunteer Award

Academician: Shankar J (Kerala Section)

IEEE Regional Exemplary Student Branch Award (2021)
Region 10

Bangalore Section

CENTRAL UNIVERSITY OF KARNATAKA

Bombay Section

- SIES Graduate School of Technology
- IEEE Student Branch of Don Bosco College of Engineering (IEEE DBCE SB)

Delhi Section

- The NorthCap University
- IEEE ADGITM

Gujarat Section

Silver Oak University

Kerala Section

- College of Engineering Karunagappally
- IEEE SB GOVERNMENT COLLEGE OF ENGINEERING KANNUR
- IEEE Student Branch Chengannur College of Engineering
- IEEE Student Branch Rajiv Gandhi Institute of Technology
- Sree Chitra Thirunal College of Engineering
- IEEE Student Branch Mar Athanasius College of Engineering
- Adi Shankara Inst of Engineering & Tech
- Rajagiri School of Engineering and Technology IEEE Student Branch
- IEEE Student Branch College of Engineering Adoor

Larry K. Wilson Regional Student Volunteer Award (2021) Region 10

Virendra Pratap Singh

The NorthCap University, STB11841, Delhi Section

Nomination forms open for

- 1. R10 Outstanding Volunteer Award
- 2. R10 Humanitarian Technology Activities (HTA) Section Award
- 3. R10 Humanitarian Technology Activities (HTA) Volunteer Award
- 4. R10 Educational Activities (EA) Group Award
- 5. R10 Educational Activities (EA) Volunteer Award
- 6. R10 Life Member (LM) Outstanding Volunteer Award

Section Reports

IEEE Hyderabad Section Activities (July -September)

Student Activities Committee (SAC)

Parjanya '21, A monsoon congress - 24th & 25th, July 2021



The IEEE Hyderabad Section Student Activities Committee, in collaboration with the IEEE Hyderabad Section Computer Society Chapter and the Women in Engineering Affinity Group, hosted Parjanya '21, a monsoon congress on the 24th and 25th of July. Eminent personalities like Mr. Sreenivas Jasti, Dr Arif Sohel, Dr Lalitha SVNL, Dr MA Jabbar, Dr R Bala Subramanian,

Mr. Bala Prasad Peddagiri, Dr Y V Siva Reddy, Dr Y Padma Sai were also a part of the event. Prominent speakers like Mr. Varla Bhanu Prakash Reddy, Ms. Tejaswini Pagadala, Mr. Shyam Prasad Rajashekharan, Ms. Usha Iyer, Mr. Aravind Perumal, Mr. Geetananda Reddy, Mr. Sairam Vedam, and Dr KMM Rao delivered thought provoking talks on various themes.

Women in Engineering Affinity Group

Women in Engineering – Leadership Insights



WIE Affinity Group of IEEE Hyderabad Section helps women engineers by bringing in role models to share their story and provide their insights. On 9th July 2021, Ms. Karuna Annavajjala, Chief Information Officer at Silicon Labs shared the insights she has gathered from her journey as an engineering student in Hyderabad to a CXO position in a billion-dollar engineering -

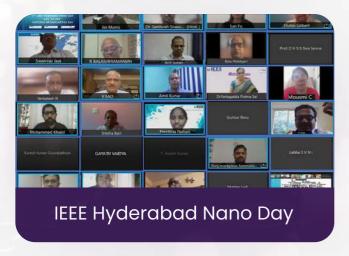
multinational based in the US.

Safety, Security and Threat Awareness - 13th Aug 2021



On 13th and 14th August, 2021, IEEE WIE AG in association with Guntur Subsection Koneru Lakshmaiah College of Engineering organized a two-day webinar on Safety, Security and Threat Awareness.

Nanotechnology Council Hyderabad Section Chapter



1st IEEE Hyderabad Nano Day on the occasion of the Launch and Inauguration IEEE Nanotechnology Council Event IEEE Hyderabad Section Chapter. Nanotechnology Council Hyderabad Section Chapter received formation approval on 24th June 2021. Launch and Inauguration event of the chapter was scheduled on July 23, 2021 as 1st IEEE

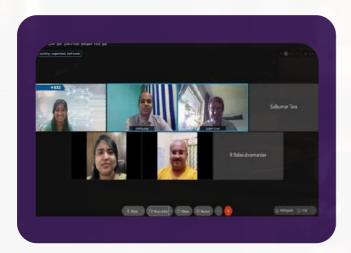
Hyderabad Nano Day 2021. Many events were scheduled throughout the day ranging from Distinguished Keynotes, Technical Keynotes, Industry Experts Interaction, IEEE NTC Ex-Com Representation, IEEE Hyderabad Section Exe-com Representation, R10 Exe-com and Industry Expert Representation, Release of NTC HSC roadmap along with Volunteering and Networking opportunities exploration.

IEEE Hyderabad Section Sensors Council

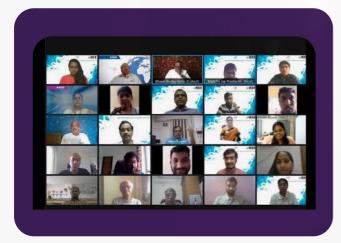
Wearable Magnetic Skins and Sensors - 22nd Aug 2021



IEEE Hyderabad Section Sensors Council Chapter organized a Distinguished Lecture titled "Wearable Magnetic Skins Sensors" on 22nd Aug 2021. The session was handled by Dr. Jürgen Kosel, Associate Professor, Computer Electrical and Mathematical Science and Engineering Division, Biological and **Environmental** Science and Engineering Division, King University Abdullah of Science and Technology, Saudi Arabia.









IEEE Madras Section

IEEE MASCON 2021



IEEE Madras section organized its first-ever hybrid Conference of 2021. MASCON 2021 - IEEE Madras Section International Conference 2021 took place for two days from 27, 28 of August 2021 at Le Royal Méridien, Chennai, Tamil Nadu. The conference provided a technical forum for innovators and researchers to present their findings among the leading experts in the

industries. The event had about 547 registered papers from 12 countries.

Top-notch experts like Mr. John D. McDonald P.E., Dr. Ganesh Sankaranarayanan, Dr. S. K. Ramesh, Dr. Suresh Sundaram, Dr. N. Kumarappan, Mr. K. Mukund, and Mr. Ravikiran Annaswamy shared their insights and experience to the young generation.

The chief guest for the session was Dr. Panchantham Natarajan, passed on his best wishes to the team. The inspiring presidential address was delivered by Mr. Deepak Mathur and the guest of honor was Dr. Suresh Nair, who passed on his support to the team connecting virtually.

IEEE MAS SAC SB - LEADD



On July 28, 2021, IEEE Madras Section paved a gateway for a 5 – day resolute solicitous virtual event IEEE MAS – SB LEADD (IEEE Madras Student Branch Leadership Enhancement and Development Drive). Eminent personalities like Dr N. Kumarappan, Dr Rajasree Jain, Ms Janani R, Mr Praveen Kumar, Mr Venkat Ramanan, Ms Indumathi, Mr Ramneek Kalra, Mr Ashvanth

B, Mr Elancheziyan, Mr. R. Sreekanth, Dr S. Brindha, Mr Vamsi Krishna J, Mr Princely Samuel, and Mr Aravindhan Anbazhagan graced the event with their presence.

IEEE MAS E - TECH SYMPOSIUM



IEEE Madras Student Activities Committee and Student Coordination Team executed IEEE MAS E – TECH, a two-day Symposium magnificently. The event commenced virtually on July 4th, 2021 as Dr. N. Kumarappan, Mr. Deepak Mathur, Mr. Aravindhan Anbazhagan, Mr. Ashvanth B, Ms. Anuradha Prakash, Mr. Swatish along with Mr. Kennedy Sesaiah were part of the

event and shared their valuable knowledge.

INTERNATIONAL WORKSHOP ON "NATURAL INSPIRED COMPUTING APPLIED TO ENGINEERING



IEEE CIS Madras Chapter in association with Sri Sai Ram Engineering College, Chennai conducted the international workshop on "Natural Inspired Computing Applied to Engineering" for 4 days from 23/07/2021 to 26/07/2021. Shri. Sai Prakash Leo Muthu, Dr. N. Kumarappan, Prof. Dr. N. Panchanatham graced the event with their presence. Dr. Vincenzo Piuri, Dr.Cesare Alippi,

Dr. G.Saravana Kumar, Dr. S.Jagannathan, Dr. N. Kumarappan, Dr. Narasimman Sundararajan and Dr.Komla Agbenyo Folly shared their knowledge on different topics through various sessions.





IEEE Bombay Section

SMELT 2.0 Event Report



Student Membership Enhancement and Leadership Development abbreviated as SMELT was organized by IEEE Bombay Section Student Activities Committee from 28th to 30th August, 2021. Distinguished speakers like Dr. Rajesh Ingle, Ms. Warunika Hippola, and Dr. Satyanarayan Bheesette shared valuable information and guided our delegates throughout the 3 days.

IEEE India Council Students Coordination Team

IEEE IC was a proud host of the webinar 'IEEE Software and Systems Engineering Standards' by Ms. Susan Kathy Land, IEEE President and CEO 2021, dated 10th July 2021. India Council had arranged a tech-talk with the Managing Director of Hero Electric Vehicles Pvt. Ltd, Mr. Naveen Munjal on 11th July 2021. The topic of the session was electric vehicles and their market in India. The second episode of "Chai Pe Charcha" series was organized on 15th August 2021. The guest of honor for the second episode of Chai pe Charcha was Prof. Sivaji Chakravorti, Past Chair of IEEE India Council. Dignitaries like Mr.Suresh Nair, Mr.Deepak Mathur were in attendance.

Technical Articles

Techno-centric Era for Higher Educational Institutions in India

Dr. Gururaj Mukarambi

Assistant Professor, Department of Computer Science, Central University of Karnataka, Kalaburagi.

When the coronavirus pandemic hit India in the month of January-2020, it posed big challenges to the educational system in general and Higher education in particular; the primary key issue was how to manage offline classes without disturbing the academic calendar of the University/College system. All educationists expressed their deep concern about the situation in which the pandemic was created. Still, as many crisis periods are happening in India or the world. The educators/teachers/instructors have started to use online teaching modes. It was a spontaneous response from the people working in the educational sector.

Since from a long time, the Government trying to bring the blended model of the online learning system in HEI's, but there was no expected repose from the stakeholders due to over-dependence of the traditional mode of teaching and learning activities or the standard which our long-running educational practices created in the minds of educational practitioners. Still, the coronavirus pandemic brought a paradigm shift in the teaching-learning activities of Higher education institutions, and it was a spontaneous systemic change that took place.

If we look at the Global scenario, the Blended learning method is the need of the hour; world-famous educational institutions adopted this best practice of online 'Blended learning' mode. When it comes to developing countries like India, the online Equation is one way to enhance our enrolment rate in Higher education, maybe that's one of the reasons the UGC recently approved 38 universities' proposal to start online Programmes.

Learning from home is not a new concept to our education system because previously, our educationists experimented with Correspondence courses, learning through distance education, and still several institutions in India provide Higher education through Distance education. The IGNOU is one of the best examples of such an -

Telecourses

- · Online learning (e-learning)
- · Mobile learning

Few scholars raised certain issues in Traditional Distance learning activities; those issues directly connected with the questions of accountability for teaching and learning in traditional distance mode. After decades of an experiment, we didn't guarantee expected quality and accountability in educational learning practice.

To overcome these issues today, Academic leaders proposing Learning Management System (LMS) because it has been proved that through LMS, we can achieve quality online education and blended learning; the exciting thing is its equivalent to face to face communication because it creates a virtual classroom where teachers and students can interact with audio and video communication on live mode.

In our earlier experiments like Telecourses/Online mode, the instructor (Teacher) was supposed to create the content and the system supposed to upload the lecture, which is pre-recorded where there was no space for live interaction, finally, it ended resulting in technically poor quality of content and alienation in a teacher-student relationship. But, in LMS, we can achieve it. Today Corporate Industries are ready to develop software to help teachers according to their requirements; the industries also come up with engaging learning-friendly content which teachers can use to explain the concepts. The Learning Management System is a software application that can also use as Educational Administration, Tracking, Reporting, and Documentation tool.

The Learning Management System serves as a learning and communication platform for Students and Teachers. The use of LMS is to make Teachers deliver the lecture through quality e-content, they can also start forum discussion with students and assess the students using quizzes and other types of examination where a student can take the quiz or give test online; the system grades the work and provides the student with immediate results, which are learning-friendly, and it can also help us to archive "continuous and comprehensive evaluation" system which is prescribed by most of the educational experts and curriculum like CBCS (Choice based credit system). LMS is also a platform for the students to access course documents, supplemental course material and also creates a place to submit papers online, check grades, and download class documents. It is also a good platform for collaborative work.

Currently, the education system in the country is shifted to e-mode. The teachers and

students adapt themselves to accessible digital platforms to keep the education sector breathing. Few state Governments in India like Karnataka, Jammu, and Kashmir, and others have taken the LMS initiative to continue the streamline of the online education system. Through the Learning Management System (LMS), administrations can monitor the attendance of teachers as well as the students for the online classes. Even after the introduction of the LMS, a few teachers other than technical students faced technical glitches causing inconveniences to the teachers.

Hence, proper training and orientation are required for the teachers to use LMS ineffective mode, as well as proper IT infrastructure is also required in University/College institutions. Then only, quality online education is manageable in the educational institutions in India.

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