AMET
ACADEMY OF MARITIME EDUCATION AND TRAINING
Deemed to be University Under Section 3 of UGC Act 1956

ELECTRO MARINE

NEWSLETTER

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

"2020 – 2021" (Even Semester)

ABOUT THE UNIVERSITY

AMET is India's first Deemed to be University in Maritime Education which is ranked as 3rd among Maritime Universities of the World in the PIMET (Performance Indicators in Maritime Education and Training) Ranking of International Association of Maritime Universities (IAMU). Established during 1993, AMET's uncompromising strides of excellence in the field of maritime education and training laced with its capacity to feed the global shipping industry with an unrivalled maritime human resource secured it to have many national and international recognitions, accreditations and rankings such as NAAC, NIRF, ARIIA, DGS-CIP, PIMET etc.

AMET serves as an ocean of knowledge for over 4000 students pursuing Programmes ranging from diploma to Doctoral programs through 9 schools and 23 intensive research and training centres for marine and marine related activities. Equipped with an excellent infrastructure for research and development, co-curricular and extracurricular activities AMET secured its compliance certificate for ISO 9001:2015 QMS standards from the prestigious and globally renowned DET NORSKE VERITAS, Norway.

For over two decades AMET is remaining as the favourite destination for campus interviews by many shipping giants such as AP MOLLER MAERSK, GOODWOOD, NYK, SONANGOL, VSHIPS, WALLEMS, SHELL, CHEVRON, STENA and so goes a list of over 100 companies. Besides positions onboard, AMET Business school graduates have secured lucrative jobs in commercial shipping sectors such as chartering and ship broking. Never the less, Naval architecture, petroleum engineering, harbour engineering, marine electrical and electronics engineering graduates have successfully walked away from AMET with jobs offering sumptuous packages along with an opportunity to grow and glow in their career swiftly. Needless to say, about the entrepreneurship development activities nurtured into AMET'ians has been found rewarding by students who are chief executive officers of their own organization.

ABOUT THE DEPARTMENT

The Department of Electrical and Electronics Engineering is constituted and administered to provide a professional atmosphere for scholars, students, educators and engineers to enrich the discipline of Electrical, Electronics and Marine Engineering. The Department offers a well-balanced undergraduate Electrical and Electronics Engineering -Marine program and postgraduate M-E (Power Systems) program and PhD- Electrical and Electronics Engineering program of technological and scientific study designed to serve the professional needs of the baccalaureate.

The Department gives opportunity to learn marine related courses for the students and pursue studies related to the scientific concepts, technological advancements and design principles of Electrical and Electronics Engineering pertaining to Onshore and Offshore applications as well. This programme is designed to enable the Engineers coming out of the stream to work on board the ship as Electrical Engineers. Jobs with shipyards, dry docks, ship machinery manufacturers are some of the other fields they can look into.

ESTABLISHMENT

Department of Electrical and Electronics Engineering is established in the year 2008 with the objective of imparting quality education of international standards and to produce highly innovative Marine Electrical and Electronics Engineers capable of solving global maritime challenges. Since its inception in the year 2008, the Department has grown steadily and acquired the present shape with excellent infrastructure, modern equipment for the laboratories and qualified and dedicated faculty to impart sound technical knowledge to the enthusiastic student community. As on date, the Department has successfully produced four batches of talented graduates who are serving in prestigious shipping industries and organizations.

The Department offers 4 years U.G program in EEE-Marine, PG program in M-E (Power Systems) and PhD in interdisciplinary Engineering domains. The Department is headed by Dr.T. Sasilatha, Professor and Dean and supported by a team of well qualified, experienced and dedicated faculties. The Specialization

of staff members span around major areas in Electrical and Electronics Engineering including Marine Automation, Power Systems, Electronic Navigation Systems, Offshore Energy Systems, Electrical machines, Energy studies, Control Systems, Power Electronics, Applied Electronics, Embedded Systems, Electrical Drives and VLSI Design.

PROGRAMS OFFERED

- B.E - Electrical and Electronics Engineering (Marine) - 4 years
- M.E - Power Systems - Full Time - 2 years
- Ph.D. - Electrical and Electronics Engineering - Full Time and Part Time

VISION AND MISSION OF THE DEPARTMENT

VISION

To emerge as a Centre for higher learning and research through development of highly competent, innovative and world class Marine Electrical and Electronics Engineers while remaining sensitive to ethical, societal and environmental issues.

MISSION

- To impart quality education in order to produce highly innovative, socio- economically conscious Marine Electrical and Electronics Engineers.
- To provide knowledge and skills, that is essential to meet the local and global demands in Marine Electrical and Electronics Engineering.
- To upgrade student's technical knowledge through industry interaction activities.
- To foster strong ethics, positive attitude and transform the Department into Centre of Excellence by promoting world class research and development to meet the challenging needs of society.
- To motivate and guide students for developing entrepreneurship or pursue higher education and train them for overall personality development.

"We all make mistakes, have struggles, and even regret things in our past. But you are not your struggles, and you are here now with the power to shape your day and your future"

STEVE MARABOLI

DEAN'S MESSAGE

Dr. T. SASILATHA M.E, Ph.D.

It gives me great pleasure to congratulate faculty, students of electrical and electronics department for the publication of newsletter. Newsletter is believed to be a focus of the inside activities i.e. academics, students and faculty achievement as well as innovation occurring in the department during the academic year 2020 – 2021 ODD Semester (June – December). In the era of engineering and technology this newsletter will motivate the teachers and students of sharing their creativity and new ideas with the world and will help in their overall development. I appreciate the faculty, students and supporting staff for their tireless efforts and contributions to the various activities held in the Department.

Contact Number: 91-44-27472804 Extn: 175(Off)

: 9444752994 (Mobile)

Email id: deaneeem@ametuniv.ac.in

CONTENTS

DEPARTMENT ACTIVITIES

INTERNATIONAL VIRTUAL CONFERENCE

Two Days International Virtual Conference on "Innovations and Research in Marine Electrical and Electronics Engineering (ICIRMEEE 2021)" was held on 17.06.2021 – 18.06.2021 through Online Mode (Zoom) in collaboration with University of Leicester, United Kingdom and University of Maryland, Eastern Shore, USA in association with Institution of Engineers (India) Student's Chapter (IEI) and IEEE Student Branch.

The session was started with invocation. Our honourable Chancellor **Dr.J.Ramachandran** delivered the Opportunities and challenges faced by the Maritime sector in the presidential address and Vice chancellor, **Col.Dr.G.Thiruvasagam**, delivered the technical and digital advancements in Marine Automation Industries in the inaugural address.

Dr.Gurdeep S Hura Professor, University of Maryland Eastern Shore, USA, the chief guest of ICIRMEEE21 has provided an inspiring speech about autonomous ships in shipping Industries. He also said that the faculty and students could improve their knowledge by taking up online courses like NPTEL, SWAYAM etc.

Dr. Karl Ho Director of Academic Computing, The University of Texas at Dallas (Dalus), USA, the guest of honour who gave thought provoking speech by emphasizing the significance of technology in this generation.

We have received more than 200 papers from Academicians, Researchers and UG / PG Students. Out of this, 160 papers got shortlisted for proceedings. In the international Conference ICIRMEEE 2021, around 160 Papers were presented by the participants in Track-1 to Track-8. More than 300 representatives and more than 100 colleges and universities across the world participating in this ceremony.

TRACK 1: Robotics and Marine Automation

In Track 1 totally we received 21 papers for and 16 papers were shortlisted. The key note address was delivered by **Session Chair: Dr. Gurdeep S Hura,** Professor, Dept. of Mathematics and Computer Science, University of Maryland Eastern Shore, USA.

TRACK 2: Artificial Intelligence and Soft Computing

In Track 2 totally we received 26 papers and 19 papers were shortlisted. The key note address was delivered by **Session Chair: Dr. Karl Ho, Director of Academic Computing, The University of Texas at Dallas, USA**.

TRACK 3: ICT technologies for Renewable energy

In Track 3 we received 24 papers and 15 papers were shortlisted. The key note address was delivered by **Session Chair: Shri. Dr. John Paneerselvam,** Lecturer in Informatics, University of Leicester, UK.

TRACK 4: Sustainable Energy Technologies

In Track 4 we received 26 papers and 19 papers were shortlisted. The key note address was delivered by **Session Chair: B.H Sudantha,** Dean, Faculty of Information Technology, University of Moratuwa, Sri Lanka.

TRACK 5: Marine and Off-Shore Engineering

In Track 5 totally we received 24 papers and 17 papers were shortlisted. The key note address was delivered by **Session Chair: Dr. Gaurav Shekhar,** Program Director and Assistant Professor of Instruction, The University of Texas at Dallas, USA.

TRACK 6: Power Electronics and Drives

In Track 6 we received 21 papers and 14 papers were shortlisted. The key note address was delivered by **Session Chair: Dr. Gaurav Shekhar,** Program Director and Assistant Professor of Instruction, The University of Texas at Dallas, USA.

TRACK 7: Advances in Electronics Design

In Track 7 totally we received 26 papers and 18 papers were shortlisted. The key note address was delivered by **Session Chair: Dr. Vinay Kumar Chandna,** Principal, Jaipur Engineering College, Jaipur.

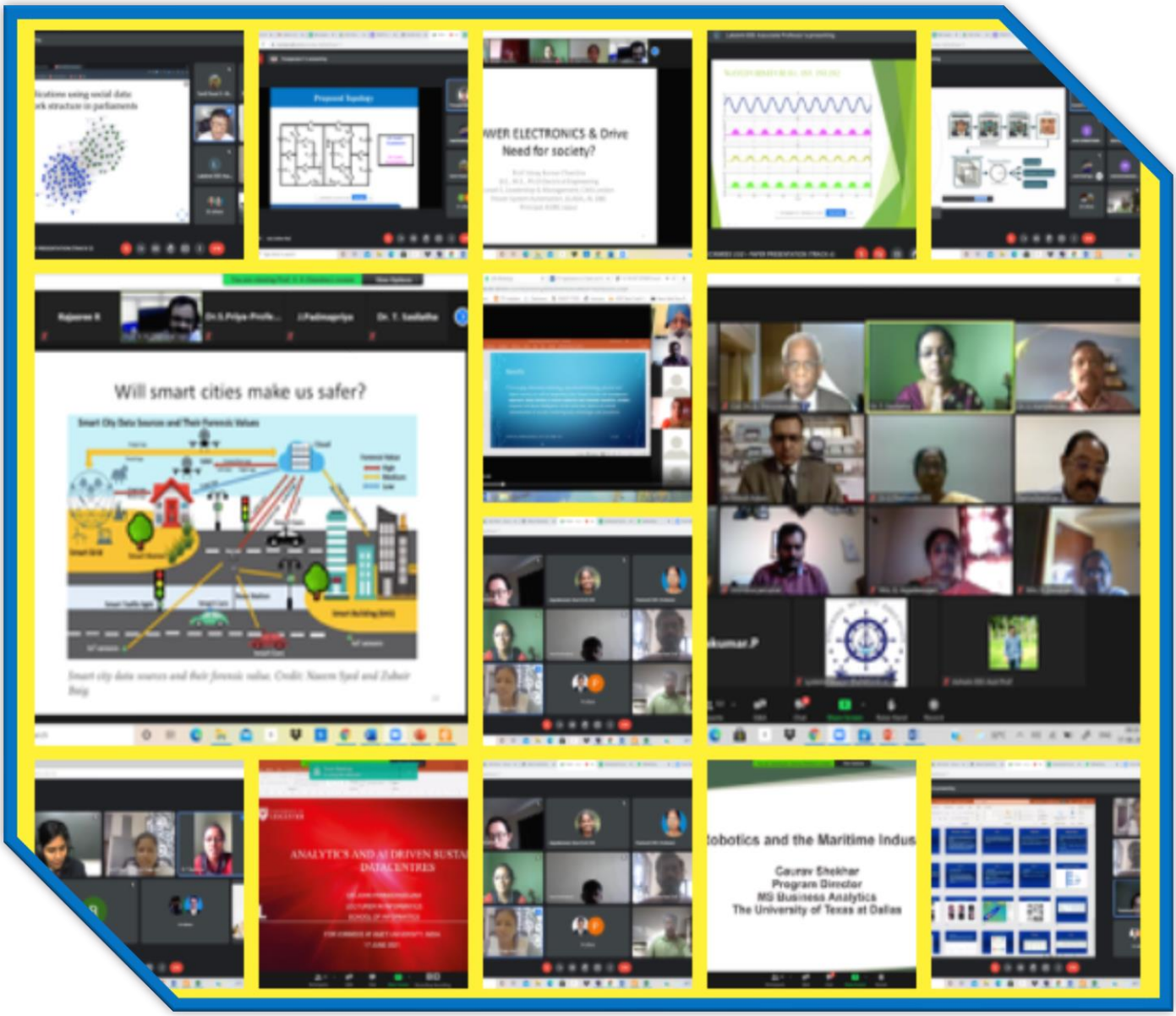
TRACK 8: Communication and computing

In Track 8 totally we received 26 papers and 18 papers were shortlisted. The key note address was delivered by **Session Chair: Dr. Thaweesak Yingthawornsuk,** Professor and Head, King Mongkuts University of Technology Thonburi, Thailand.

International Conference on Innovations and Research in Marine Electrical and Electronics Engineering - ICIRMEEE 2018 was held on 27th and 28th September 2018. This conference was organized by Department of Electrical and Electronics Engineering in Collaboration with National Institute of Wind Energy Ministry of New and Renewable Energy, Government of India and IEEE AMET Student Branch . ICIRMEEE -2018 is an international conference dedicated to blending of Electrical, Electronics, Control systems, Power Electronics and Drives, Robotics and Marine automation and Communication and Computing to Marine applications. Experts from International Electrical and Electronics Engineering domain were attended the conference. This conference presented an open forum for scientists, researchers and Engineers to exchange the latest innovations and research advancements in the areas of next generation Automated ships, Marine electrical and control systems, Marine Electronics and Navigation Systems and Robotics and Marine automation in maritime industry.

Panel discussion was organized with eminent speakers from maritime industry and Electrical and Electronics Engineering domain. They discussed the role of Electrical Engineers in Maritime sectors. They mentioned the importance of Electrical Engineers in shipping industries and other industries. They said that the Electro Technical officers will occupy key positions in ships in future. The Keynotes from distinguished experts from worldwide and technical paper presentation sessions have been organized in the international Conference.

We have received more than 300 papers from Academicians, Researchers and UG / PG Students. Out of this, 94 papers got shortlisted for presentation and is published in the conference proceedings with ISBN number 978-93-85434-75-4. The following Papers were presented by the participants in Track-1 to Track-8.



Photos of International Virtual Conference on **"Innovations and Research in Marine Electrical and Electronics Engineering (ICIRMEEE 2021)"** held on **17.06.2021 – 18.06.2021**

TECHNICAL SYMPOSIUM "ELYTRICO – 2K21"

One Day National Level Technical Symposium (ELYTRICO-2K21) conducted on 20th May 2021. Chief Guest Address was given by **Mr.S. Balaji, Scientist-F, DRDO, Ministry of Defence, Hyderabad**.

The objective of our Symposium is to bring together the students of various institutions to participate in several technical events and to make quality education of international standards. This symposium provided a space for students to herald their technical prowess and quiz their domain concepts. The symposium presented an open forum for researchers and engineers to exchange the latest innovations and research advancements.

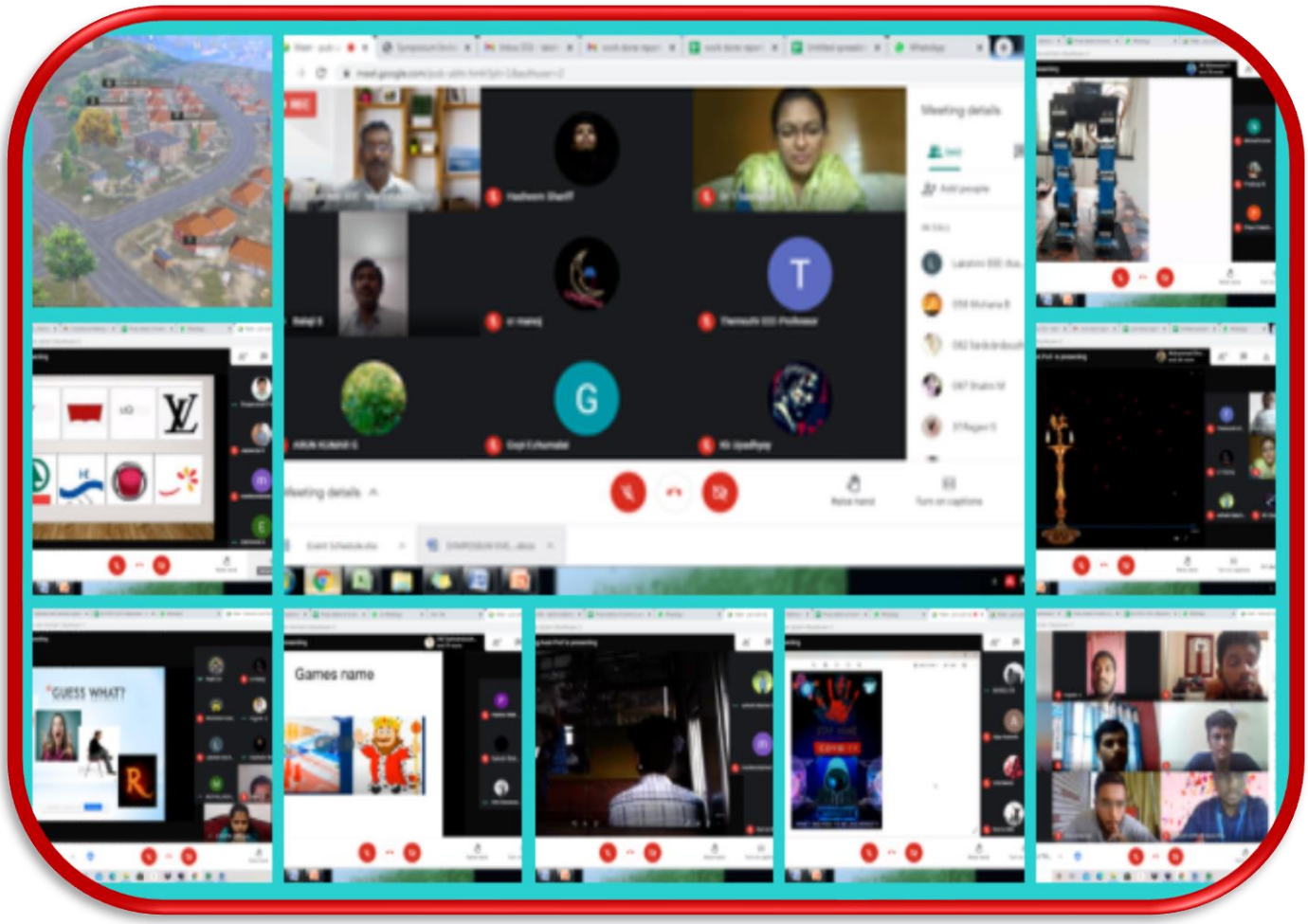
ELYTRICO-2K21 is a National Level Technical Symposium dedicated to Morphing of Electrical, Electronics, and Control systems, Power Electronics and Drives and Computers to Marine applications. Scientist from DRDO was invited to share his technical knowledge and experience. This symposium provided a platform for knowledge sharing and exchange on breakthrough ideas. The various events conducted in the symposium provided exposure to erudite work by the Engineering students. The winners of various events are awarded with cash prizes.

Events arranged for the Symposium

After the inaugural session all the participants are informed to attend the events which they have registered according to the schedule. Two tracks were scheduled for conducting all the events. Four events are scheduled in track 1 and the other four events are scheduled in track 2. Coordinators of each event, conducted their event in the organized manner. The list of events arranged for the symposium is as given below

- Technical Quiz.
- Project Presentation.
- Debugging of Arduino Programming.
- Poster Design Contest.
- Short Film.

- Bioscope.
- Logo Contest.
- Games.



Photos of National Level Technical Symposium "**ELYTRICO-2K21**" on 20.05.2021

CALIDA FESTA - 2K21 (CULTURAL MEET)

One Day Department Level Cultural Events (CALIDA FESTA 2K21) on 21st May 2021. Chief Guest Address was given by **Dr. Richa Dayaramani, Principal, Khyati College of Pharmacy, Ahmedabad**.

Our Honourable Chief Guest has addressed about importance of cultural events during pandemic situations. She mentioned that these kinds of opportunities have to be utilized by the students to improve their talent is all aspects. She addressed that the outcome of the cultural is to enhance their innovative skills and explore them to the world.

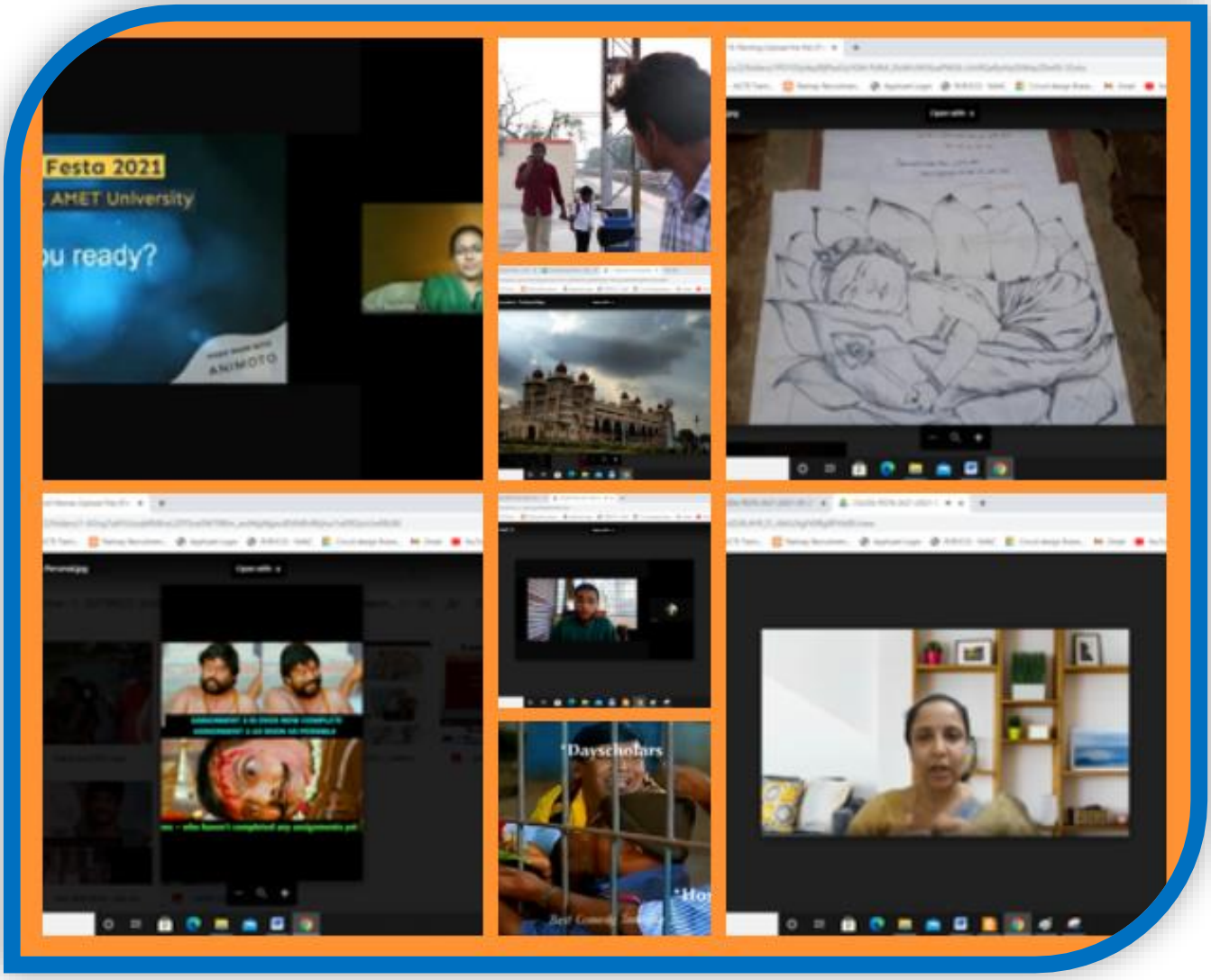
The objective of our cultural meet is to bring all the students together irrespective of years to show their talents on a platform in which students may get a chance to exhibit their talents to show their abilities in a creative and innovative manner through various forms of art. Culture is to be a dynamic, challenging and independent force based on the freedom of expression. Everyone is to have the opportunity to participate in cultural life. Creativity, diversity and artistic quality are to be integral parts of society's development. Cultural activities have several practical implications. By participating in such activities, the students become more passionate and confident. These activities also foster team spirit and a sense of responsibility in the students. Students learn to face challenges and find solutions to real-life problems. It is also believed that the students become more focused on their career. They are able to choose their field of interest early. Some activities like martial arts, dance, sports, etc promote physical wellbeing. The students become conscious regarding their health and they are also encouraged to eat the right food for a healthy body.

Events arranged for the Cultural

After the inaugural session all the participants are informed to attend the events which they have registered according to the schedule. Coordinators of each event conducted their event in the organized manner.

The list of events arranged is as given below

- Solo singing
- Solo dancing
- Short movies or plays, Troll Video and Dept. Promo Video
- Troll memes
- Adzap
- Online storytelling
- Live poetry
- Stand-up comedy
- Variety show (Mimicry)
- Paintings
- Paparazzo (photography)



Photos of Cultural Event "CALIDA FEST 2k21" on 21st May 2021

SEMINAR AND WORKSHOP ORGANIZED

1. **The Department organized One day Workshop on "Design and Development of Bipedal Robots" conducted on 10.03.2021 through Virtual Mode.**

Mr.R.Ganapathy, Product Analyst, Electronic Platform Research Labs, Chennai, delivered the guidance for the career and discussed the importance of advent courses and also guided them to groom their technical skills and guidance for the students to apply and how to approach the design process and the tools related to the designing and also involved the students in the development. A total of 22 participants got their certificate.

2. **The Department organized One day Workshop on "Global Maritime Opportunities and Challenges in the New Decade" on 18.05.2021 @ 10.00 – 12.00 pm through Google Meet.**

Session Guest **Mr.Gunashaker Kannan, Chief Engineer, Synergy Maritime Private Limited,** delivered the guidance for their career and discussed the importance of advent courses and also guided them to groom their skills required to grab employment and to develop their skills. Also he discussed about the opportunities available in the Maritime Sector and also the challenges they may face while go for sailing. A total of 72 participants and got their E-certificate.

3. **The Department organized One day Workshop on "Intellectual Property Rights Regime and its Impact" in collaboration with Tamil Nadu State Council for Science and Technology (TNSCST) Govt. of India, Chennai on 25th May 2021 through Virtual Mode (Zoom) @ 9.30 – 4.00 pm.**

Dr R Srinivasan Member Secretary Tamil Nadu State Council for Science and Technology, **(TNSCST) Govt. of India**, **Chennai** gives the significance of Intellectual Property Rights.

Resource person **Mr. A. Raja, Assistant Controller of Patents & Designs, Patent Office, Chennai** has delivered the importance of Intellectual Property Rights.

Key note speaker **Mr S. Thangapandian, Deputy Controller of Patents Patent Office, Chennai** has delivered the patents and design system in India and discuss the many features of the patent filling, also clarify the doubts from the audition.

Session speaker-I **Dr. Salman Abdul Moiz, Professor, University of Hyderabad** has delivered elaborately about the conversion of paper in to patent. Session speaker-II **Dr Deepa Boppana Regd. Patent Agent and Consultant**, she has delivered the classification of patent filling and methods of filling its validity and ways to extend the validity of the patent. A total of 146 participants got their E-certificate.

4. **Department organized Two day's Workshop on "Modelling and Simulation of Power Electronic Equipment's using Multisim" through Google Meet @ 10.00 – 12.00 pm on 04.06.2021 & 05.06.2021.**

   Mr.Keerthi Kashyap, Application Engineer, VVDN Technologies, Bengaluru delivered the guidance for their career and discussed the importance of advent courses and also guided them to groom their skills required to grab employment and to develop their skills. Also, he discussed about the opportunities available in the Maritime Sector and also the challenges they may face while go for sailing. A total of 72 participants got their E-certificate.

5. **The Department organized Two day's workshop on "Research Methodology" through Virtual Mode on 01.06.2021 – 02.06.2021 @ 3.30 – 4.30 pm.**

   In Session I, **Dr.Manpreet Singh Manna, Former Director AICTE, Ministry of Education Govt. of India, Patiala, Punjab,** elaborated the Modern tools Available for AI based Research. He also emphasis on the quality research.

   In Session II, **Dr. Preeta Sharan, Ph.D.,Post Doctorate in IIT Kharagpur, Professor, Oxford College of Engineering, Bengaluru**, explained about writing an effective proposal. She gave the list and opportunities available in various funding agencies. A total of 70 participants got their certificate.

At the end of the training, student's confidence level was drastically increased to great extent. Students showed the spark on their face of the learning curve. Consequently, Many Participants were expressed their views and feedback on this program. They are expecting more programs like this in future.

Workshop can introduce a new concept, spurring participants to investigate it further on their own, or can demonstrate and encourage the practice of actual methods. It's a great way to teach hands-on skills because it offers participants a chance to try out new methods and fail in a safe situation.

6. **Department organized One day National Seminar on "Trends in Electric Vehicles – Challenges and Opportunities" in collaboration with TVS Training & Services, Chennai on 22nd May 2021 @ 9.00 – 4.00 pm through Virtual Mode (Zoom).**

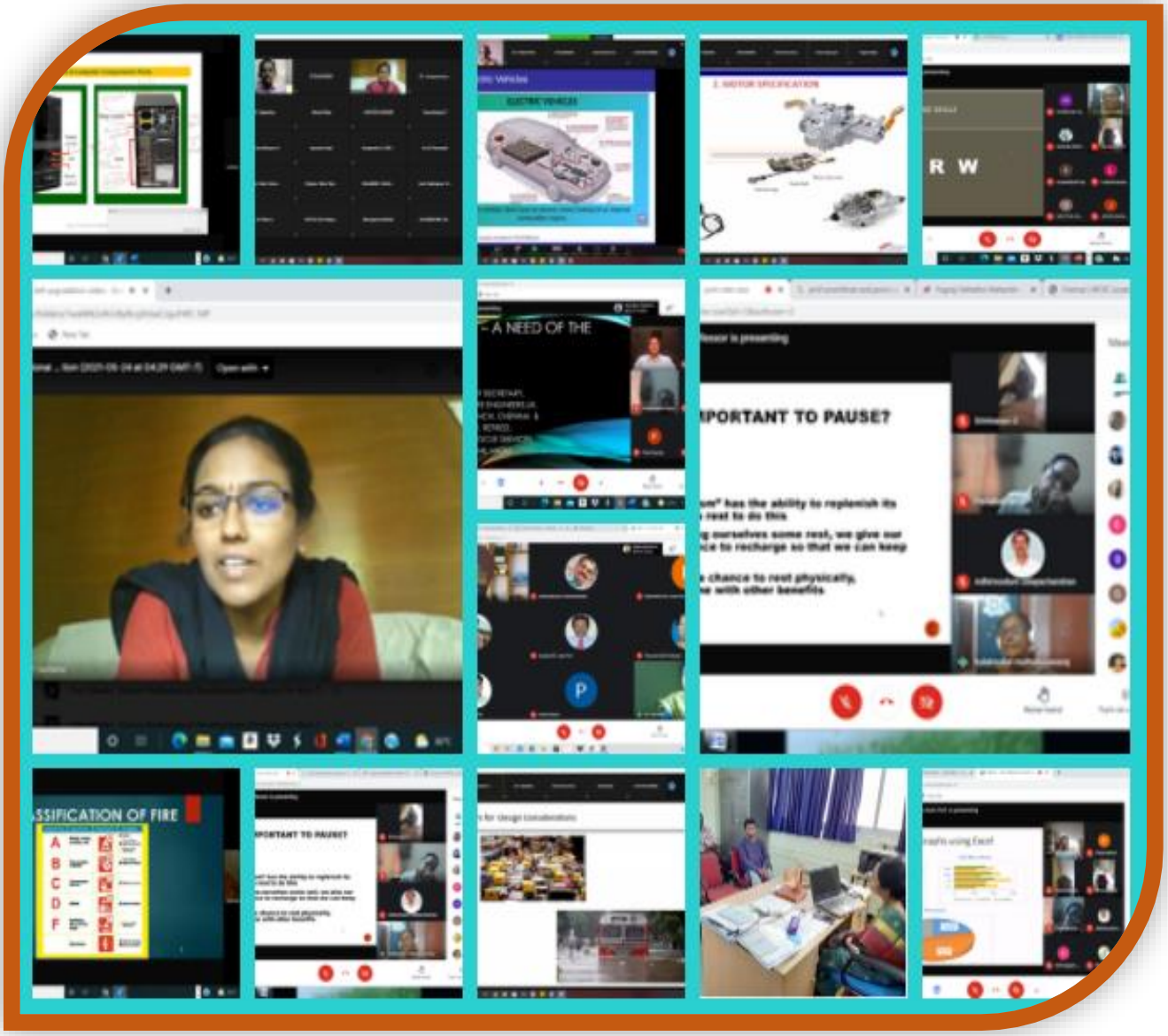
Technical session - I was delivered by **Mr. G. Velmurugan**, Senior Manager-Training, TVS Training & Services on "**Conversion of Conventional Vehicle to Electric Vehicle**". **Mr. G. Velmurugan** has provided an intricate detail about conversion of conventional vehicle to Electric

and Hybrid Electric Vehicle which is an alternative for fuel-based vehicle. He also added some useful points about importance of Electric Vehicle which is useful for the development of human community.

The technical session - II was on the topic of **"xEV: Design Trends and Opportunities"**. The guest speaker was **Mr. A.C. Huzefa, Domain Head – Electric and Hybrid Vehicle Technology, Ashok Leyland Ltd., Chennai**. He explained about the different commercial considerations in the design of Electric and Hybrid Electric vehicles and showed various electric vehicles launched by different countries.

The technical session - III was delivered by **Mr. B. BALAJI, General Manager (Rtd.), Ashok Leyland,** Chennai *on* **Emerging Opportunities in EV evolution**. He addressed about the importance of Electric Vehicle in day today life. He explained the emerging need for Electric vehicles which is going to rule the future vehicle industry due to the scarcity and increase in the price of fossil fuel. Around 100 Participants of various educational institution and industry people in all over India are attended the Workshop and got benefited.

7. **The Department organized "Alumni Meet" on 26th February 2021 at 10.00AM through Offline Mode at Room No:S-11 (Dean Room).**
8. **Department of EEE organized Two weeks Professional Development Training Programme on "Skill Upgradation" for Non-Teaching and Technical Staffs through Virtual Mode from 24.05.2021 – 04.06.2021 @ 5.00 – 7.00 pm.**
9. **The Department organized One day Orientation Programme on "Gate Preparation Strategy" on 27th May 2021 @ 10.00 – 11.30 am through Google Meet.**
10. **Conducted One Day National Level Debate Competition on "Thoughtful Arguments" on July 8th 2021organized by Energy Club of AMET through Virtual Mode.**
11. **Organized One Day National Level "Drawing and Slogan Competition" on 09.07.2021through Virtual Mode.**



Photos of Seminars, Orientation Program, Professional Development programme

PROFESSIONAL SOCIETY ACTIVITIES

(Under IEEE & IEI – Chapter)

Date	Event and Title	Resource Person
10.03.2021	One day Workshop on "Design and Development of Bipedal Robots"	**Mr.R.Ganapathy,** Product Analyst, Electronic Platform Research Labs, Chennai
18.05.2021	One day Workshop on "Global Maritime Opportunities and Challenges in the New Decade"	**Mr. Gunashaker Kannan,** Chief Engineer, Synergy Maritime Private Limited, Chennai
19.05.2021	Alumni Guest Lecture on "Advanced Technologies in Onboard Ships"	**Mr. A. Gokulnath,** Electro Technical Officer, Fleet Management Pvt. Ltd.
22.05.2021	One day National level Seminar on "Trends in Electric Vehicles – Challenges and Opportunities" in collaboration with TVS Training & Services, Chennai.	**Mr. A.C. Huzefa,** Domain Head, Electric and Hybrid Vehicle Technology, Ashok Leyland Ltd., Chennai. **Mr. B. Balaji,** General Manager (Ret.), Product Development, Ashok Leyland Ltd., Chennai. **Mr. G. Velmurugan,** Sr. Manager-Training, TVS Training & Services, Chennai.
25.05.2021	One day Workshop on "Intellectual Property Rights Regime and its Impact" in collaboration with Tamil Nadu State Council for Science and Technology, (TNSCST) Govt. of India. Chennai.	**Dr. R. Srinivasan,** Member Secretary, TNSCST, Chennai. **Mr. A. Raja,** Assistant Controller of Patents & Designs, Patent Office, Chennai. **Mr. S. Thangapandian,** Deputy Controller of Patents Patent Office, Chennai. **Dr. Salman Abdul Moiz,** Professor, University of Hyderabad. **Dr Deepa Boppana,** Regd. Patent Agent and Consultant.
27.05.2021	One day Orientation Programme on "Gate Preparation Strategy"	**Mr. P. Selvasornam,** Trainer, Smart Academy, Chennai.

24.05.2021 – 04.06.2021	Two weeks Virtual Professional Development Programme on "Skill Upgradation"	**Dr. Kulal Mollial,** Head, Departemnt of English, AMET University. **Mr. M. Namasivayam,** District Fire Officer (Rtd.), Tamil Nadu Fire and Rescue Services. **Dr. T. Baldwin Immanuel,** Associate Professor, Department of EEE, AMET University. **Mr. A. Murali,** Network Engineer, Jaze Networks Pvt Ltd, Chennai. **Dr. G. Merlin Linda,** Assistant Professor, Department of CSE, SRM Institute of Science and Technology, Chennai. **Mr. Sudheer Reddy Bande,** Assistant Professor, Department of CSE, Tagore Engineering College, Chennai. **Mrs. Vennila,** Assistant Professor, Department of IT, AMET University. **Prof. S. Palani kumar,** Assistant Professor, Department of EEE, AMET University. **Dr. Annie Sam,** Associate Professor, AMET Business School, AMET University.
01.06.2021 – 02.06.2021	Two day's Seminar on "Research Methodology"	**Dr. Manpreet Manna, M.E., Ph.D.,** Former Director at AICTE, Ministry of Education Govt. of India, Patiala, Punjab, India. **Dr. Preeta Sharan, Ph.D**, **Post Doctorate in IIT Kharagpur**, Professor, The Oxford College of Engineering, Bengaluru, India
04.06.2021 - 05.06.2021	Two day's Workshop on "Modelling and Simulation of Power Electronics Equipment's using Multisim"	**Mr. Keerthi Kashyap,** Application Engineer, VVDN Technologies, Bengaluru.
05.06.2021	Alumni Guest Lecture on "Latest Technology in Ballast Water Treatment System"	**Mr. Deewakar Sourabh,** Assistant Electrician, Golden Jake Singapore / Bulk Carrier, Majuro / Marshal Islands.
09.06.2021	Guest Lecture on "Smart Sensors in Industrial Applications"	**Mr.K.Vignesh** UAV Pilot, Garuda Aerospace Pvt Ltd.

17.06.2021 – 18.06.2021	International Virtual Conference on "Innovations and Research in Marine Electrical and Electronics Engineering" ICIRMEEE2021	**Dr. Gurdeep S Hura,** Professor, Department. of Mathematics and Computer Science, University of Maryland Eastern Shore, USA. **Dr. Karl Ho,** Director of Academic Computing, University of Texas at Dallas, USA. **Prof. B.H. Sudantha** Dean, Faculty of Information Technology, University of Moratuwa, Sri Lanka. **Dr. Thaweesak Yingthawornsuk,** Professor and Head, King Mongkuts University of Technology Thonburi, Thailand. **Dr. John Paneerselvam,** Lecturer in Informatics, University of Leicester, UK. **Dr. Gaurav Shekhar,** Program Director and Assistant Professor of Instruction, University of Texas at Dallas, USA. **Dr. Vinay Kumar Chandna,** Principal, Jaipur Engineering College and Research Centre, Jaipur. **Dr. Nilesh Kalani,** Dean, Faculty of Technology, RK University, Rajkot.
08.07.2021	One Day National Level Debate Competition on "Thoughtful Arguments"	**Energy Club** of AMET Deemed to be University
09.07.2021	One Day National Level "Drawing and Slogan Competition"	**Energy Club** of AMET Deemed to be University

STUDENTS ARTICLES

STUDENT'S INTERNSHIP

INTERNSHIP from "JET Aerospace Aviation Research Center", Kanjikode, Palakkad, Kerala

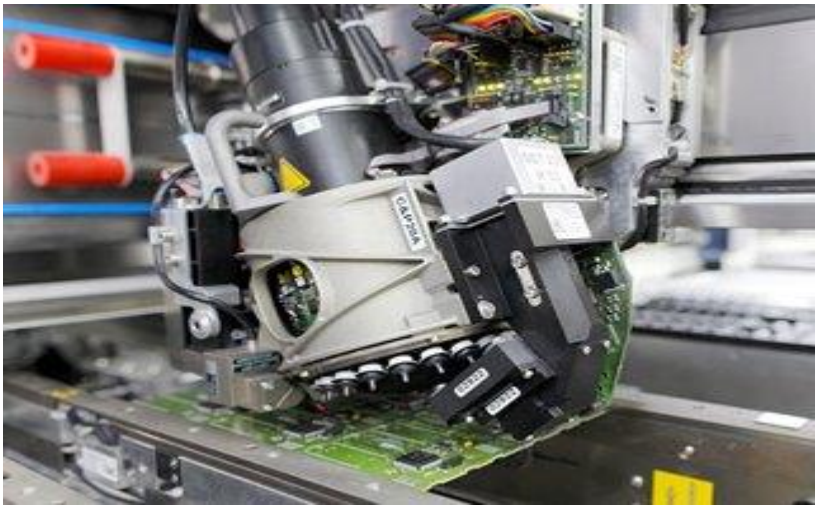
INTERNSHIP from "Chennai Port Trust"

INTERNSHIP DETAILS

S.No	Register Number	Roll Number	Student Name	Company Name
1	AEE17001	EE329	VINNARASI V	Hindustan Shipyard Limited, Visakhapatnam
2	AEE17003	EE331	ABHISHEK M DEEPAK	
3	AEE17011	EE339	BALAMURUGAN K	
4	AEE17012	EE340	BRIJESH C R	
5	AEE17013	EE341	P DHANASEKAR	
6	AEE17020	EE348	KARTHICK R	
7	AEE17024	EE352	MANOJ C K	
8	AEE17025	EE353	MANOJ KUMAR R	
9	AEE17036	EE364	RUDRAN V	
10	AEE17003	EE331	ABHISHEK M DEEPAK	JET Aerospace Aviation Research Center, Kanjikode, Palakkad, Kerala
11	AEE17008	EE336	ARUN KUMAR K S	
12	AEE17010	EE338	BALAJI M	
13	AEE17011	EE339	BALAMURUGAN K	
14	AEE17012	EE340	BRIJESH C R	
15	AEE17033	EE361	NIRMAL KUMAR B	
16	AEE17034	EE362	PRADEEP M	
17	AEE17041	EE369	SURYA PRASAD A	
18	AEE17001	EE329	VINNARASI V	Chennai Port Trust
19	AEE17016	EE344	HARIHARAN N	
20	AEE17018	EE346	HEMANTH RAJ R	
21	AEE17020	EE348	KARTHICK R	
22	AEE17023	EE351	MANIVANNAN DS	
23	AEE17025	EE353	MANOJ KUMAR R	
24	AEE17035	EE363	PURUSHOTHAMAN N	
25	AEE17037	EE365	SANTHOSH B	
26	AEE17053L	EE382L	VIKNESH S	NOVA Instrumental and Labs

MODERN TRENDS IN MACHINE DESIGN TECHNOLOGY

PURUSHOTHAMAN / IV Year / EEEM



Recent Trends in Electric Machines are neural networks, Artificial Intelligence, expert system, fibre communications and integrated electronics, hot superconductors and other new ceramic conducting and dielectric materials, magnetic levitation etc. should help young electrical engineers to develop newer, cheaper and more effective electrical energy converters and their controllers. Among all the various forms of energy systems, electrical energy offers the most flexible, economic and efficient mode for generation, transmission and utilization and has become the backbone of modem civilization. It provides for lighting, heating, transportation, communications and practically all industrial processes. Most of the power required for human activities round the globe continue to come from electrical machines from the very large generators installed in power stations to the very small motors in automatic control systems.

The need for keeping the magnetic flux within identical paths led to a large scale use of silicon-iron electrical steel in most electrical devices from large transformers and generators to small transducers. Hadfield and his colleagues were the first to demonstrate in 1900 that addition of small amount of silicon or aluminium to the iron would reduce iron losses by a factor of 4. Now there is increased levels of customer support. With the emphasis on just-in-time production, downtime is unacceptable. With today's systems, if the machine goes down one can via modem, have a technician at a remote site use system diagnostics software to troubleshoot the entire system from anywhere in the world. If we could erase history and start out with a clean slate, there is no doubt that ac would be the choice. But the fact is that there are billions of dollars of dc investment running, converting operations throughout the world. Some day all motors and drives may be ac, but the conversion will progress at a rate dicted purely by economics.

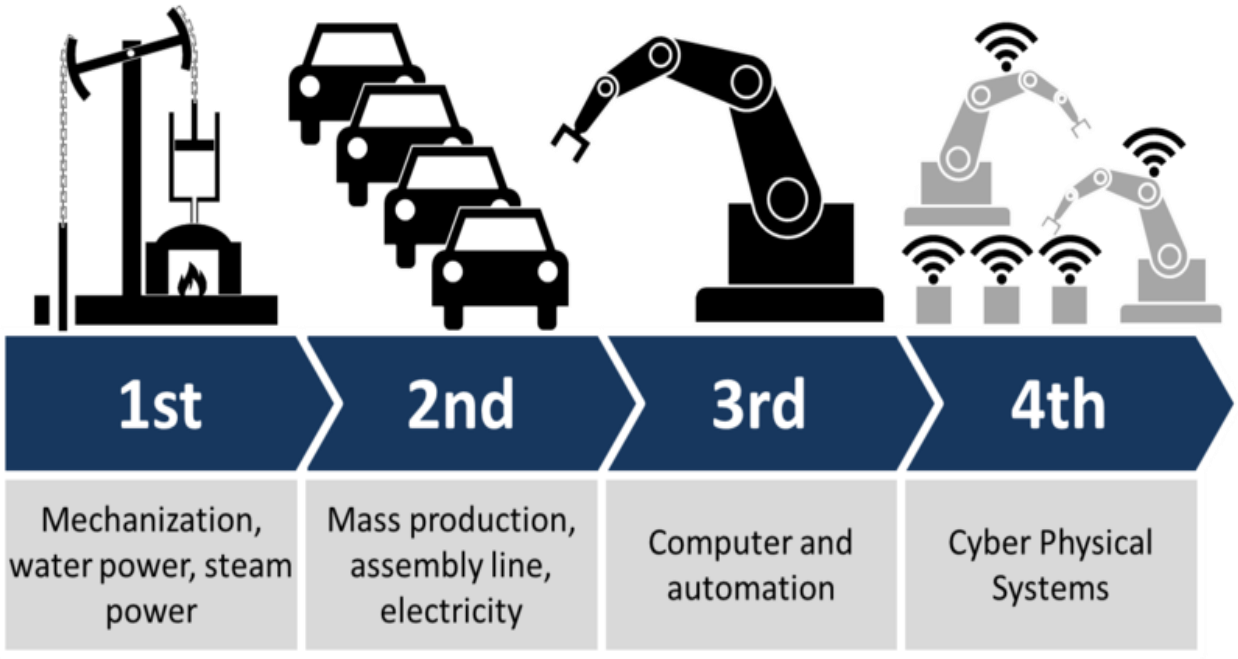
INDUSTRIAL REVOLUTION – 4.0

VINNARASI / IV Year / EEEM

We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before. We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society.

The First Industrial Revolution used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and information technology to automate production. Now a Fourth Industrial Revolution is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres.

There are three reasons why today's transformations represent not merely a prolongation of the Third Industrial Revolution but rather the arrival of a Fourth and distinct one: velocity, scope, and systems impact. The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace. Moreover, it is disrupting almost every industry in every country. And the breadth and depth of these changes herald the transformation of entire systems of production, management, and governance.



CRYPTO CURRENCY: A BRIGHT FUTURE OR JUST A FAD?

NITHISH / II Year / EEEM

Cryptocurrencies are the digital currencies that uses encryption techniques to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank. Over the years, bitcoin, as a cryptocurrency has been unstable leading to investors pulling away from investing in the same. After depreciating by up to 70% last year, the same has appreciated by almost half so far this year, to regain the $10,000 mark against the US dollar.

A crypto currency is a digital or virtual currency that uses cryptography to secure, create and control its transactions. Unlike traditional currencies, which are issued by central banks, crypto currency has no central monetary authority. Bitcoin is the first crypto currency which came to public notice in 2009. Following this a number of other crypto currencies, such as Ethereum, Ripple, Litecoin, Cardano etc. exist in the market. Crypto currency can be exchanged for other currencies, products, and services. In recent months, Economists, Central Bankers and Monetary Experts have expressed their reservations on the future of this currency. Investors and Enthusiasts of this currency are however bullish.

How does a Crypto Currency work?

The technology behind Crypto functioning is Blockchain. A blockchain is a public ledger that keeps records of all prior bitcoin transactions. These data units or blocks use cryptographic validation to link themselves together. The entire network is used to monitor and verify both the creation of native tokens through mining, and the transfer of tokens/coins between users. Miners are individuals or organizations who, with the use of powerful computers carry out mining process. Mining is the process by which transactions are verified and added to the public ledger, block chain, and also the means through which new coin are released. The mining process involves compilation of recent transactions into blocks and finding solution of a computationally difficult puzzle. The successful miners who solve the puzzle get to place the next block on the block chain and are rewarded. The reward is twofold. The newly minted tokens/coins and the fees paid by users sending transactions are rewarded to the miners for their efforts.

MISSION TO MARS – CAN INDIA AFFORD SPENDING A FORTUNE ON SUCH PROJECTS?

AMUTHAN / II YEAR /EEEM

India's mission to Mars was succeeded through Mangalyaan. Mangalyaan or the Mars Orbiter Mission (MOM) is a space examination project launched by the Indian Space Research Organization on November 5, 2013. This Martian space probe project is in orbit since September 24th, 2014. India was the first Asian country and fourth country in the world to reach Mars. The project was approved by Prime Minister Manmohan Singh on 3 August 2012. The project was launched by the Polar Satellite Launch Vehicle (PSLV) C-25 from Space Center at Sriharikota. Indigenously built Mars orbiter aimed at studying Martian atmosphere, its surface features, mineralogy, and morphology.

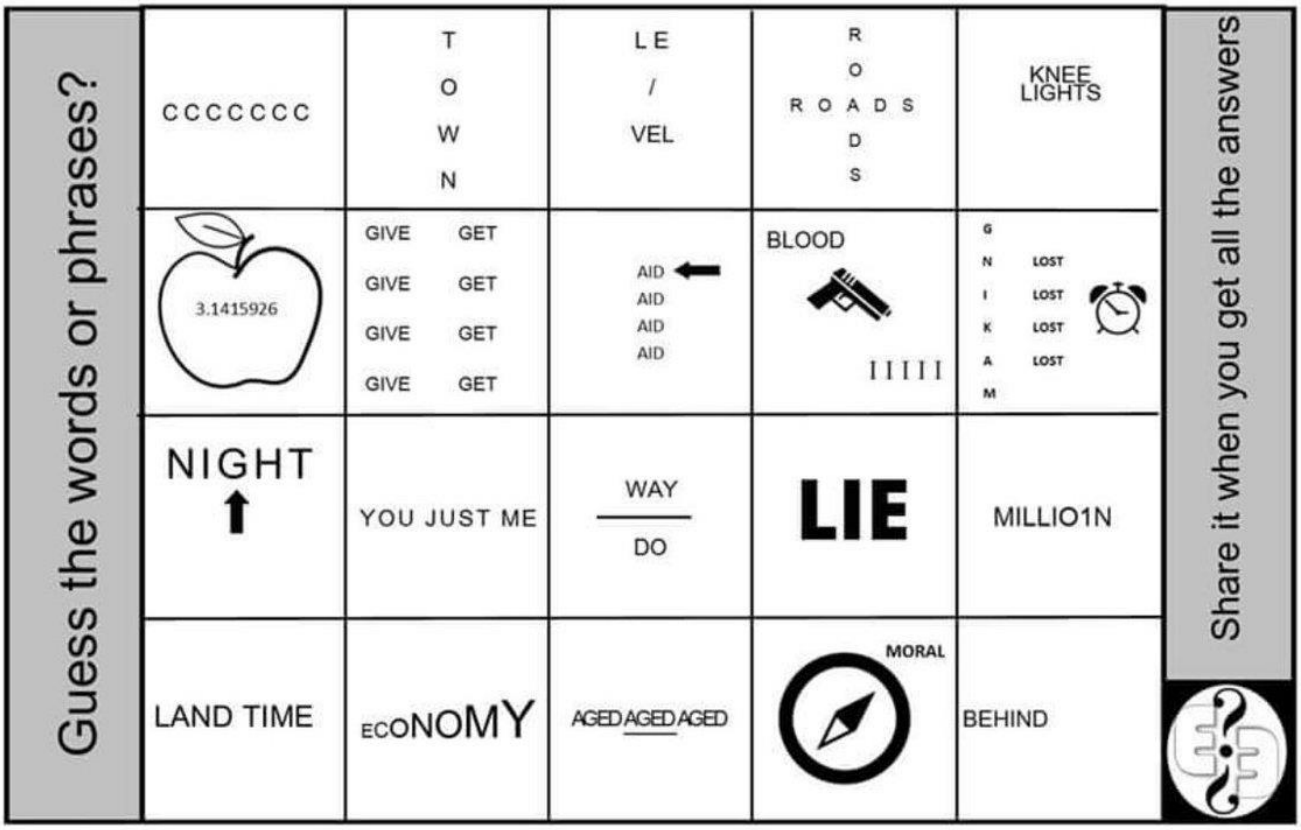
Mars Orbiter Mission objective was to develop technologies that are needed in planning, managing, designing the operations of this interplanetary work. In 2018, MOM completed four years in orbit around Mars, despite the designed mission life of six months only. ISRO is now working on developing a follow-up mission.

This was India's biggest achievement in space and was lauded all over the globe for its success and cost-effectiveness. Mangalyaan's trajectory in the Martian circle provided a prodigious amount of data to Earth. The Mars Colour Camera (MCC) on the orbiter took 980+ images and prepared the Mars Atlas.

The orbiter worked in good condition even after 5 years and is still performing well on its tasks. The Indian Space Research Organization (ISRO), after its studies, projected the total cost at Rupees 454 crores (67 $ million). There are believers, who advice prioritizing poverty issues over such missions. But so far India is working to eradicate economic problems and there is budget for each issue. Likewise, India has a budget for space programs also because these are useful in prompting innovations in a country. India tasted success in the first attempt which is a moment of history. This has kindled competition among the Asian nations. It is India's turn to put China back by taking a step ahead.

LIFE PUZZLES

ASHWIN / II Year / EEEM



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THE HAPPINESS
OF YOUR LIFE
DEPENDS ON THE QUALITY
OF YOUR THOUGHTS.
Marcus Aurelius

THANK YOU!!!