

THE PINNACLE

OFFICIAL NEWS LETTER OF MECHANICAL ENGINEERING DEPARTMENT

AARUPADI VEEDU INSTITUTE OF TECHNOLOGY

YEAR 2021 JANUARY-JUNE VOL.1

ABOUTus

The evergreen and ever growing mechanical industry witnesses an ongoing enormous development in its technology and application methodologies. It has proved its stability even during the economic recession and has also captured the attention of the whole world with some innovative products. The Department offers a full-time undergraduate course in the Mechanical Engineering, Automobile Engineering & Full-time Post Graduate Course Manufacturing Engineering. The department also offers a part-time under graduate course in Mechanical Engineering, part-time post graduate course Manufacturing Engineering and B.voc course in automotive manufacturing technology.

The Department has well-equipped laboratories with state of the art facilities. The department has been organizing a cascade of seminars, quest lectures, workshops, Faculty Development Programs, symposia, conferences, industrial visits, in-plant training and inter collegiate programmes from time to time for the benefit of the faculty members and students through its Technical Association - "Association of Mechanical Engineers of AVIT", Engineering Design Collegiate Club

(EDCC) and professional bodies like Indian Institute of Metals (IIM), ENFUSE, SAE Collegiate club, NIQR and IIPrE.

The department is entrusted with research Centers in Alternative Fuels testing and Bosch Automotive Research. The department has established TARG-Thrust Area Research Group in three major fields of Mechanical Engineering, viz. Materials and Manufacturing Technologies, CAD/CAM, Automotive Research. The Faculty members and students being members of these groups continuously engaged in the research of the recent developments in Mechanical Engineering domain.

VISION & MISSION

VISION:

The Department of Mechanical Engineering endeavours to be the globally recognized knowledge epicenter in education, to create the well qualified Society responsible engineers, entrepreneurs and to innovate successful advancements in the research.

MISSION:

To provide quality and systemized education to enhance and enrich the skills of the mechanical engineers through the research facilities and learner friendly environment to disseminate the knowledge.

QUALITY POLICY:

The Department of Mechanical Engineering is committed to provide Organizational support to achieve the quality in all the aspects of pedagogy.

The department is also committed to empower all the process of continual improvement and to motivate the young minds to perform in the best way as well to cater the needs of self, society, nation and the world of the recent developments in Mechanical Engineering domain.



Principal Desk

Dr.G.Selvakumar

I would like to express my pleasure and gratefulness on the occasion of release of "THE PINNACLE"-Newsletter of Department of Mechanical Engineering. Every department of AVIT organizes loads of programmes for the benefits of students' community and the faculty members as well. Such newsletter would bring them all in a single hub to cherish, understand the values and help us in analysis for additional impetus to march ahead. I certainly believe that the outcomes of all the activities would have benefitted every individual participant and brought laurels to the institution and department as well.

The Department of Mechanical Engineering is one of the premier engineering branches and with lot of revolutionary changes and rejuvenation, the department is evergreen. It is glad to understand that the Department of Mechanical Engineering, AVIT is well focused on the objectives and marching towards pinnacle of success.

I convey my wishes to the students, Faculty Members, Editorial team and Head of Department, Mechanical Engineering for releasing the newsletter.

With my best wishes to all concerned.



HOD Desk

Prof. L.Prabhu

Education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing the potential for them to have the personality, intelligence, noble character, and skills needed for themselves and society. Aristotle's definition of education is the same as that of his teachers, that is, the "the creation of a sound mind in a sound body". Thus to him, the aim of education was the welfare of the individuals so as to bring happiness in their lives.

Department of Mechanical is a unique and evergreen branch with highly qualified and dedicated faculty members. We give a quality education through practical knowledge, workshops, industrial visits, internships, guest lectures, seminars, conferences, etc., and provide opportunities for students to participate in various co-curricular and extracurricular activities.

This newsletter is an attempt to highlight the achievements of the department from January 21 to June 21. I appreciate all my faculty members, Research Associates, Research Scholar and students for their tireless efforts in bringing out this Newsletter in an effective manner

PH.D AWARDED



Mr. M. Saravanakumar completed his Ph.D. public viva-voce oral examination held on 17th March 2020 at VMRF, Salem. Research topic: "Experimental Studies on a Performance, Combustion and Emission Characteristics of Di Diesel Engine Using Pongamia Biodiesel as Alternative Fuel". Research supervisor: Dr.M.Prabhahar, Professor, Department of mechanical engineering, AVIT.



Mr. S. Prakash completed his Ph.D. public viva-voce oral examination held on 30th December 2020 at VMRF, Salem. Research topic: "Experimental studies on performance, combustion and emission characteristics of DI Diesel engine using pongamia Biodiesel as alternative fuel". Research supervisor: Dr. M. Prabhahar, Professor, Department of mechanical engineering, AVIT.

	FACULTY AWARDS AND RECOGNITION					
S.No	Name	Category Of The Receipt Of The Award	Name Of The Award / Recognition	Name of The Organization Issued The Award / Recognition		
1	Prof.L.PRABHU	Faculty	HOD of the year award 2020	Institute of scholars, Sep-20		
2	Prof.L.PRABHU	Faculty	Innovation Ambassador	MoE's Innovation cell &AICTE, New Delhi, Feb-21		
3	Dr.M.Prabhahar	Faculty	Acted as expert speaker during international faculty development program on automobile turbo-2021	KIOT, WOLLO University, Ethiopia, Feb-21		
4	Dr.S.Sangeetha	Faculty	Recognized as NPTEL discipline star	SWAYAM, NPTEL-MHRD, Feb-21		
5	Dr.S.Prakash	Faculty	Recognized as NPTEL discipline star	SWAYAM, NPTEL-MHRD, Feb-21		
6	Mr.A.Imthiyas	Faculty	Recognized as NPTEL discipline star	SWAYAM, NPTEL-MHRD, Feb-21		
7	Mr.S.Kalyanakumar	Faculty	Recognized as NPTEL discipline star	SWAYAM, NPTEL-MHRD, Feb-21		
8	Dr.M.Prabhahar	Faculty	Research excellence award 2021	Institute of Scholars, Feb-21		
9	Mr.S.Ashokkumar	Faculty	Top performing mentor appreciation award	SWAYAM, NPTEL-MHRD, Feb-21		
10	Mr.S.Sathyaraj	Faculty	Top performing mentor appreciation award	SWAYAM, NPTEL-MHRD, Feb-21		
11	Mr.N.Lakshminarayanan	Faculty	Acted as a resource person for the "webinar on biofuels"	ARASU Engineering College, Mar-21		
12	Mr.A.Senthil Kumar	Faculty	Best research scholar award	Novel research academy, Puducherry, India, year 2021		



























	STUDENTS AWARDS AND RECOGNITION						
S.No	Name / Year	Category Of The Receipt Of The Award	Name Of The Award / Recognition	Name Of The Organization Issued The Award / Recognition			
1	B. Ajith kumar / III year Auto	Appreciation	Tamilnadu legislative Assembly election	District police office, Chengalpattu district.			
2	S. Suryaprakash / IV year Mechanical A	Appreciation	Tamilnadu legislative Assembly election	District police office, Chengalpattu district.			





EVENTS ORGANIZED BY DEPARTMENT



INTERNATIONAL SKILL DEVELOPMENT PROGRAM ON VEHICLE ELECTRONIC CONTROL SYSTEM

[8.4.2021 to 10.4.21]

Trainers: Dr. M. Saravanakumar & Mr. N. Shivakumar, Assistant Professor (Gr-II), Mechanical Department, AVIT.

Outcome:

- Learner can tune up Engine, Antilock Braking System, Cruise Control, Air Bag and other electronic control system parameters involved in the vehicles
- ↓ Learner can test Stater Motor and Alternators with the help of Auto Electrical Test Bench
- Learner can top up/recharge the Air Conditioning fluid into the vehicle air conditioning system
- Learner can test the condition of battery and voltage drop across the battery with supply usage
- Learner can become Entrepreneur with the knowledge gained from vehicle electrical and electronics

More info: https://tinyurl.com/p7vrz3sf

AMEA



HORSE POWER 2021- VIRTUAL SYMPOSIUM

[9.6.2021 to 10.6.21]

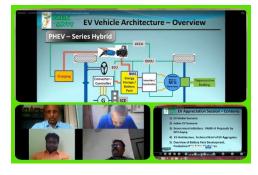
Chief Guest: Mr. P. Sundararajan, Vice President (Corporate Affairs), CEAT LTD, Chennai.

Outcome:

The symposium was initiated with the motto of let us Gear Up to motivate the students during the lock down period to exhibit and enhance their skillset. Learner can become Entrepreneur with the knowledge gained from vehicle electrical and electronics.

More info: https://tinyurl.com/y4wbrj67

NIQR



WEBINAR ON "OVERVIEW ON ELECTRIC BUS DEVELOPMENT".

[14.6.2021]

Resource person: Mr. Nandakumar Anandharamna, Consultant, EV Energy Management Solutions & Aggregates Development Chennai.

Outcome:

- 4 It provide the awareness of EV Technology, Industry Challenges ahead
- ♣ Encourages contributing towards global initiatives on use of green energy concepts
- Recommends carving a niche career for yourself by embracing the future
- Overview of Battery pack development
- Production plan and challenges in Battery

More info: https://tinyurl.com/9pz4upbm

IIPrE



SIX DAYS VIRTUAL INTERNSHIP TO A MAKERS LAB TOWARDS INNOVATIVE PRODUCT DEVELOPMENT

[25.05.2021 to 31.05.2021]

Resource person: Mr. S. Subramanian, Innovator & Entrepreneur, Corner stone Automation.

Outcome:

- The Programme was organized to explain the entire cycle of Product Development, right from Design Thinking to Product innovation.
- Innovative products are developed based on the inputs by the students and mentored by Corner stone Automation

More info: https://tinyurl.com/bm75er8s

IIPrE



VIRTUAL INDUSTRIAL VISIT - TVS TRAINING SERVICES PVT. LTD

[15.06.2021]

Resource person: Mr. Muneeshwaran, Technical Trainer, TVS Training & Services ltd

Outcome:

- Clear understanding of product and process flow.
- Career opportunities in core Industries.

More info: https://tinyurl.com/yucwcfx7

IIPrE



WEBINAR ON "APPLICATIONS OF SIX SIGMA IN INDUSTRIES - AN OVERVIEW"

[17.06.2021]

Resource person: Mr. Ramani Balakrishnan, Chief Operating Officer, Viruksa Manufacturing Solutions
Pvt Ltd

Outcome:

- ♣ Students understood the importance and different tools in six sigma.
- ◆ To know about Difference between Six Sigma Yellow Belt, Green Belt, and Black Belt
- Application of six sigma in industries.
- How to Improve productivity
- How to meet customer expectations

More info: https://tinyurl.com/8yjmp39j

IIM



WEBINAR ON "NANOMATERIALS AND ITS FUTURE ASPIRATIONS IN ENGINEERING"

[18.5.2021]

Resource person: Dr. S. Imran Hussain, Senior Research Fellow, Department of Applied Science & Technology, AC Tech Campus, Anna University, Chennai.

Outcome:

- Students understood the importance and different tools in six sigma.
- ♣ To know about Difference between Six Sigma Yellow Belt, Green Belt, and Black Belt
- Application of six sigma in industries.
- ♣ How to Improve productivity
- How to meet customer

ΙΙΜ



More info: https://tinyurl.com/en6mp6j6

WEBINAR ON "ENGINEERING EXPERIENCE IN OPERATING STEAM GENERATOR OF A POWER PLANT"

[16.6.2021]

Resource person: Mr.B.Azhagarason, Scientific officer – E, Mechanical Division, Technical group, BHAVINI, Kalpakkam.

Outcome:

- Students understood the importance and different types of heat exchangers.
- Design of heat exchangers.
- 4 Application of heat exchangers in nuclear power plant.
- ◆ Various researches related to heat exchangers.

More info: https://tinyurl.com/hprvey2e

ENFUSE



EMPLOYABILITY ENHANCEMENT SKILL DEVELOPMENT COURSE ON "ENERGY AUDITING, BIO FUELS AND SOLAR ENERGY"

[13 & 14.05.2021, 19.5.2021 to 21.5.2021 -30 Hours]

Resource person: "Dr.Mayilvelnathan, HOD /Mech.Engg, Md.Sathak College of Engineering, Mr.R.Mahesh, AP (G-II)/Mech, AVIT, Mr.A.Senthilkumar,AP/Mech, AVIT. Mr.N.Lakshminarayanan, Asso.Prof/Mech, AVIT, Mr.Srinivas, RA Energy Systems, Mr.A.Elanthiraiyan, AP (G-II)/ Mach, AVIT. Dr.J.M.Babu, Prof/ Mech, VELTech University. Mr.K.Vijayakumar AP (G-II)/ Mech, AVIT.

Outcome:

- Students understood the importance and different types of heat exchangers.
- Design of heat exchangers.
- 4 Application of heat exchangers in nuclear power plant.
- Various researches related to heat exchangers.

More info: https://tinyurl.com/kt7y496p

EDCC



WEBINAR ON "CREATIVITY TO NEW PRODUCT DEVELOPMENT"

[29.04.2021]

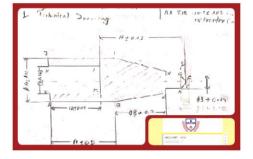
Resource person: Mr.G. Ajitha Prabhu, The kriatec services Pvt. Ltd director & Mr. S. RaviKumar, Application Manager.

Outcome:

The programme was conducted for the awareness of New Product development & Technologies available in various core mechanical industries, departments and job opportunities available in NPD Sector. The Students interacted with the guest regarding new product development and future scope.

More info: https://tinyurl.com/c4v7jtu8

EDCC



MECH SIRPI - 2K'21 - ENGINEERING DESIGN TALENT HUNT

[7.05.2021]

Outcome:

Students motivated and enhance the Design skills of the students.

More info: https://tinyurl.com/2j68rhuc

EDCC



WEBINAR ON ANGEL INVESTMENT / VC FUNDING OPPORTUNITY FOR EARLY-STAGE ENTREPRENEURS

[28.5.2021]

Resource person: Ar.M.E.Al Sameem, Architect & Fashion Stylist, Founder, Melba & Designer M Studio, India & UAE

Outcome:

The programme was conducted for giving an idea to become a product designer to start his own business. The guest gave every nuance to a budding entrepreneur to initiate his /her business with a product or process and further flourish to the next level

More info: https://tinyurl.com/4sz332zt

EDCC



WEBINAR ON INNOVATION THROUGH DESIGN THINKING

[7.5.2021]

Resource person: Dr.Bala Ramadurai, Consultant, Author, Coach and Professor, Symbiosis Institute of Business Management .

Outcome:

The programme was conducted to give more insights to the Students about how to do an innovation through exploring different design techniques.

More info: https://tinyurl.com/kr3meb9e

AMEA & NIQR



WEBINAR ON "BIG PICTURE ON FLEXIBLE MANUFACTURING SYSTEM"

[25.5.2021]

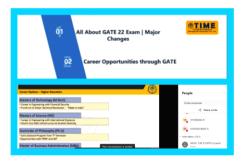
Resource person: Dr.R.Palavesa Murugan, Assistant General Manager, HCMC, Ashok Leyland Limited.
Chennai.

Outcome:

- Students understood the importance of FMS.
- Changing in market and needs of Customer.
- ♣ About Product Innovation, Business Process Innovation
- ♣ Importance of MAP and Current trends in Manufacturing and future plans

More info: https://tinyurl.com/evtpxrak

AMEA



WEBINAR ON "CAREER ENHANCEMENT THROUGH GATE"

[4.6.2021]

Resource person: Mr. Murali Karthikeyan, Academic Head -GATE, T.I.M.E., Chennai

Outcome:

Students gained knowledge about how to prepare for GATE and its career opportunities and they understand the important career opportunities available for engineering graduates (GATE, ESE, PSUs Jobs, and State Service Commission, IT / Private sector Jobs) and other competitive exams.

More info: https://tinyurl.com/d5j6n4td

AMEA



ALUMNI LECTURE SERIES

[7.6.2021 to 12.6.21]

Alumni speakers:

Day 1. Dr. Vikas Sharma, Batch: 2007-2011, Research Associate, Aston University, Birmingham, England, UK. Day 2.Mr. Rakesh Kumar Singh, Batch: 2005-2009, Assistant Manager – Sales, Honda Motorcycles and Scooter Pvt. Ltd, Gurgaon.

Day 3. Mr. Dilip Kumar Sharma, Batch: 2008-2012, Chief Operating Officer, Asvin Tech Biodent Pvt Ltd, Patna, Bihar Day 4. Mr.R.M. Vicky john leanes, Batch: 2014-2018, Managing Director & Technical Head, Crank Angle Automotive (CA 720), Chennai.

Day 5. Mr. Abhinav Kumar, Batch: 2006-2010 (MECH), Manager, Berkshire Hathaway group, IMC, Bommasandra Industrial Area, Bengaluru.

Day 6. Mr.Bimlesh Kumar, Batch: - 2010-2014 (MECH), Senior Engineer, IHD Industries Pvt Ltd.

Outcome:

Students gained the knowledge in different topics: Bio Fuel Mixture Preparation, Leadership, Team Building, Value Proposition Canvas, Advanced Technologies in Automobile, Tool Movement, IOT implement in machine. It was very inspiration session for the students given by their seniors from different sectors.

More info: https://tinyurl.com/2w2uyuae

IIC



ALUMNI LECTURE SERIES ON "DO'S AND DON'TS THAT WILL SHAPE YOUR CAREER"

[3.5.2021]

Resource person: Mr. Amit Kumar Choudhary, Batch: - 2011-2015 (MECH), Sub Inspector cum Officer, Chainpur Police Station, Gumla, Jharkhand-835206

Outcome:

The programme was conducted to give the preparation tips to the Students for Government competition exam, JSSC SI Exam & Eligibility to become police officer, Types of job Roles police officer.

More info: https://tinyurl.com/279yvp7c

ENFUSE



WEBINAR ON "NEXT GENERATION WIND POWER TECHNOLOGIES" [18.6.2021]

Resource person: Mr. V. Velmurugan, Vibration Technical Consultant, Chennai

Outcome:

- The programme was The students have gained knowledge on Design parameters
- Availability and Methods of Energy production in Wind Energy system
- Students have gained information related to Employment opportunities in Wind Energy system
- ♣ Government's policies of new and renewable energy development were discussed.

More info: https://tinyurl.com/zbdr5s6d

ICRAMET 2021



4th International e-Conference on "Recent Advancement in Mechanical Engineering and Technology" ICRAMET 2021

[24.6.2021 & 25.6.2021]

Resource person: Dr. G.K. Vijayaraghavan, Faculty of Engineering (Mechanical), Al Jazirah Institute of Science and Technology, Abu Dhabi, UAE

Objective:

The primary objective of the conference is to provide a common platform for the researchers, young budding PG and UG pursuing Students and Faculty members.

More info: https://tinyurl.com/dch5jksj

TOPPERS OF ODD SEM 2020 - 2021 Grade obtained Year / Department S.No Name of the student **Akshay Surendran** IV Year / Mechanical SGPA - 9.84 Sarath chandran IV Year / Automobile SGPA - 9.3 Ashik John Mathew III Year / Mechanical CGPA- 9.2 Melvin Shaji III Year / Mechanical CGPA- 9.2 Ajith Kumar III Year / Automobile SGPA- 9.347 Vikash Kumar Singh II Year / Mechanical SGPA-9.11













STUDENTS INTERNSHIP PARTICIPATION DETAILS

























	RESEARCH AND DEVELOPMENT – PROJECT PROPOSALS SUBMITTED							
S.NO	PI Name	Project Proposal Title	Funding Agency Name	Amount Applied (Amount In Lakhs)	Project Duration (In Months)			
1	Dr.M.Thiruchitrambalam	Fabrication and evaluation of formaldehyde free hybrid composite reinforced using jute? Graphene as a wood substitute	SERB-SUPRA	34.14	3 Years			
2	Dr.D.Bubesh Kumar	Plasma sintered titanium boride and titanium alloy nanocomposite for main battle tank	SERB-SUPRA	32.54	3 Years			
3	Dr.M.Thiruchitrambalam	Evaluation of hybrid peek matrix nano composite with enhanced bio activity and anti-bacterial activity for bio implant applications	SERB-CRG	41.19	3 Years			
4	Dr.D.Bubesh Kumar	Design and fabrication of exoskeleton for soldiers	SERB-CRG	23.11	3 Years			
5	Dr.S.Sangeetha	Design & deployment of surveillance bot	SERB-CRG	28.35	3 Years			

	PATENTS DETAILS						
S.No	Inventors-Name	Patent Title/ Copyrights Title	Patent/ Copyright Number	Granted / Filed Published Date	Patent Type (Product/ Process/Design/ Innovation /Copyrights)	Country	
			PATENT GR	ANTED			
1	Dr.M.Prabhahar	A parallel series electric hybrid vehicles based on geometry formulation	2020102967	Granted on 09.12.2020	Innovation	Australia	
2	Prof.L.Prabhu	Go kart	334631-001	Granted on 04.01.2021	Design	India	
3	Mr.J.Senthil	Drone for fire extinguisher	339286-001	Granted on 19.03.2021	Design	India	
4	Mr.M.Saravanan	Robot for underwater operations	339284-001	Granted on 25.03.2021	Design	India	
5	Mr.N.Lakshminarayanan	IoT based solar energy detection with crescent dunes	2021100172	Granted on 03.04.2021	Innovation	Australia	
6	Mr.N.Lakshminarayanan	Electric hybrid power source for vehicles using weightless internal combustion	2021102319	Granted on 04.07.2021	Innovation	Australia	
			PATENT I	FILED			
1	Dr.M.Thiruchitrambalam	Smart contact lens for monitoring glucose and eye pressure	202141009032	Filed on 04.03.2021	Innovation	India	
2	Mr.R.Praveen	Beach cleaning vehicle	339285-001	Filed on 18.02.2021	Design	India	
3	Dr.D.Bubesh Kumar	Nanocomposite helmet for soldiers	202141012656	Filed on 24.03.2021	Innovation	India	
5	Dr.M.Thiruchitrambalam	Semi-automatic paper cutting machine using Geneva mechanism and industrial IoT	202141020435	Filed on 05.05.2021	Innovation	India	
6	Mr. Antony Casmir Jayaseelan	Spherical shape vibration isolator	344329-001	Filed on 07.06.2021	Design	India	
		PATENT PUBLISHED					
1	Dr.D.Bubesh Kumar	Surface impact fatigue corrosion machine for biomedical. Implants and fixators	Application no 3401/che/2015	FER received on 27.03.2021	Innovation	India	
2	Dr.D.Bubesh Kumar	Intelligent baby warmer	Application no 5587/che/2015	FER received on 10.03.2021	Innovation	India	









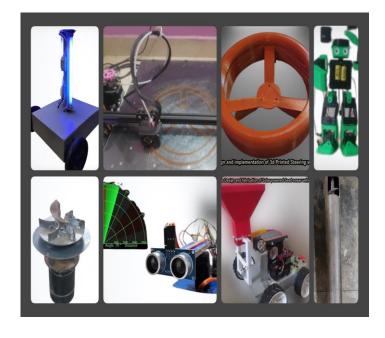


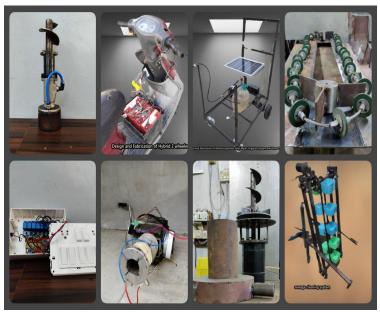


	ONGOING SEED MONEY PROPOSALS							
S.No	PI Name	Name Of The Proposal	CAT 1 / 2	Duration In Months	Recommended Fund In Rs. Lakhs	Unique ID.		
1	Prof.L.Prabhu	Design and analysis on performance of computer control shell and tube heat exchanger	2	18	1.8	VMRF/SEEDMONEY- PHASE2//2020-10/AVIT- KANCHI/9		
2	Dr. M. Prabhahar	Kinetic modelling and experimental study on split injection strategies for ECU controlled CI engines	1	18	2.0	VMRF/SEEDMONEY- PHASE2//2020-10/AVIT- KANCHI/10		
3	Prof .A. Senthil Kumar	Performance analysis of R6ooa refrigeration system with composite nanolubricants – An energy conservation approach	1	18	1.9	VMRF/SEEDMONEY- PHASE2//2020-10/AVIT- KANCHI/8		
4	Mr.N.Lakshminarayanan	Pure Water by Solar Desalination with Multi Effect Solar Still	2	18	1.89	VMRF/SEEDMONEY- PHASE2//2020-10/AVIT- KANCHI/13		
5	Mr. N.Shivakumar	Experimental Instigation on Performance and Emission Control of Modified GDI engine with Electronic Control Unit (ECU)"	2	18	1.97	VMRF/SEEDMONEY- PHASE2/ /2020-10/AVIT- KANCHI/ 12		

S.NO RESEARCH ARTICLE PUBLICATION DETAILS Thiruchitrambalam M, 'Dynamic Mechanical Behavior and Fractography of Polyester - Lyocell fabric Composite', Materials Today Proceedings, JANUARY 2021, Scopus, 2214-7853 Senthil Kumar A, 'Experimental investigation of ZnO/SiO2 hybrid nanolubricant in R600a vapour compression refrigeration system', Materials Today Proceedings, JANUARY 2021, Scopus, 2214-7853 Senthil Kumar A, 'Experimental investigation of CuO/SiO2 hybrid nanolubricant in R600a vapour compression refrigeration system', Materials Today 3 Proceedings, JANUARY 2021, Scopus, 2214-7853 Senthil Kumar A, 'Experimental Investigation of Al2O3 /Sio2 hybrid nanolubricant in R6ooa Vapour compression refrigeration system', Materials Today 4 Proceedings, JANUARY 2021, Scopus, 2214-7853 Senthil Kumar A, 'Experimental investigation of SiO2 nanolubricants for R410A vapour compression refrigerator system', Materials Today Proceedings, 5 JANUARY 2021, Scopus, 2214-7853 Sathiyaraj S, 'Experimental investigations on mechanical properties of Al-B4C metal matrix composites', Materials Today Proceedings, JANUARY 2021, 6 Scopus, 2214-7853 Prabhahar. M 'Oxides of Nitrogen and Soot Trade-off Characteristics of Methyl Esters in a Hybrid Mode Compression Ignition Engine', Materials Today 7 Proceedings, FEBRUARY 2021, Scopus, 2214-7853 8 Prabhahar. M, 'Charging of car Battery in Electric Vehicle by Using Wind Energy', Materials Today Proceedings, FEBRUARY 2021, Scopus 2214-7853 Prabhahar. M, 'Optimization of Pyramid Shaped Single Point Incremental Forming of Aa5052 Alloy Sheet', Materials Today Proceedings, FEBRUARY 2021, 9 Scopus, 2214-7853 Prabhahar. M, 'Analysis on Mechanical properties Of Wood Plastic Composite', Materials Today Proceedings, FEBRUARY 2021, Scopus, 2214-7853 10 Prabhahar. M, 'Vehicle to Vehicle Data Transfer and Communication Using LI-FI Technology', Materials Today Proceedings, FEBRUARY 2021, Scopus, 2214-11 7853 Prabhahar. M, 'Design and Analysis of Vibration exerted in Automobile Car Seat Due to Road Excitation Using CATIA', Materials Today Proceedings, 12 FEBRUARY 2021, Scopus, 2214-7853 Prabhahar. M, 'Analysis of Cymbopogon Citratus, Pinus Sylvestris and Syzygium Cumini Biodiesel Feedstocks for its Fatty Acid Composition', Materials 13 Today Proceedings, FEBRUARY 2021, Scopus, 2214-7853 Prabhahar. M, 'Experimental Investigation on a Two Stroke SI Engine to Optimize Fuel Consumption through Electronic Ignition', Materials Today 14 Proceedings, FEBRUARY 2021, Scopus, 2214-7853 Prabhahar. M, 'Studying the Regularities of Oxidative Catalytic Cracking of Vacuum Distillates', Materials Today Proceedings, FEBRUARY 2021, Scopus, 15 2214-7853 Sangeetha Krishnamoorthi, 'Resistance Heated Catalytic Converter (RHCC) with Copper Oxide Catalyst for Reducing HC/CO Emission from Automobile', 16 Materials Today Proceedings, FEBRUARY 2021, Scopus, 2214-7853 Sangeetha Krishnamoorthi, 'Investigation on Aluminium/Mild Steel Plates Bonded Polyurethane Sheets to Control Vibration', Materials Today Proceedings, 17 FEBRUARY 2021, Scopus, 2214-7853 Thiruchitrambalam M, 'Motorcycle Helmet with Air-Filtration System for prevent human respiratory systems', Journal of Huazhong University of Science 18 and Technology, MARCH 2021, Scopus, 1671-4512 Thiruchitrambalam M, 'Study of Mechanical Properties of alkali treated Smilax Zeylanica fiber / sisal fiber / vinyl ester hybrid composites under wet 19 condition', Materials Science (Mediziagotrya), APRIL 2021, Science citation Index, Print ISSN: 1392-1320, Online ISSN: 2029-7289 Antony Casmir, 'Synthesis and performances characteristics of biodiesel from animal fat', Materials Today Proceedings, MAY 2021, Scopus, 2214-7853 20 Selvababu B, Investigation of machining characteristics of aluminium 6061 by wire cut EDM process', Materials Today Proceedings, MAY 2021, Scopus, 21 2214-7853 Ashokkumar S, 'Effects of process variables optimization on the quality of parts processed in high speed single point incremental sheet metal forming by 22 ranking algorithm', Materials Today Proceedings, MAY 2021, Scopus, 2214-7853 G. Antony Casmir Jayaseelan, 'Effect of engine parameters, combustion and emission characteristics of diesel engine with dual fuel operation', FUEL, JUNE 23 21, Scopus, 0016-2361 A. Senthilkumar, 'Performance analysis of R600a vapour compression refrigeration system using CuO-Al2O3 hybrid nanolubricants', Applied science, JUNE 24 2021, Scopus, 2190-5509 25 M. Prabhahar, 'Self-healing materials-A Review', Materials Today Proceedings, JUNE 2021, Scopus, 2214-7853 26 M.Prabhahar, 'Analysis on productivity improvement using lean manufacturing concept', Materials Today Proceedings', JUNE 2021, Scopus, 2214-7853 G. Antony Casmir Jayaseelan, 'Performance test on Clengines on improving the oxidation stability of biodiesel', AIP Conference proceedings, JULY2021 27 28 G. Antony Casmir Jayaseelan, 'Performance enhancement of diesel engines using combined biodiesel', AIP Conference proceedings JULY 2021. G. Antony Casmir Jayaseelan, 'Effect of mixing two biodiesels on emissions in Clengine fueled by candle nut and soap nut methyl esters -diesel blends, 29 'AIP Conference proceedings, JULY2021.

	INNOVATION PRODUCT DEVELOPMENT							
S.NO	Name	Title Of The Product Incubated	Name Of The Collaborating Industry / Organization	Value (Amount in Rs. Lakhs)	Date			
1	Prof.L.Prabhu	Smart phone controlled robot using bluetooth	Cornerstone Automation	0.1	17.03.2021			
2	Mr.R.Praveen	Gesture controlled robot using MPU 6050	Cornerstone Automation	0.1	17.03.2021			
3	Dr.S.Sangeetha	Stewart platform using servomotors	Cornerstone Automation	0.15	18.03.2021			
4	Prof.L.Prabhu	Mecunnum wheeled omni direction robot	Cornerstone Automation	0.15	18.03.2021			
5	Mr.J.Senthil	Finger print controlled security system	Cornerstone Automation	0.15	18.03.2021			
6	Prof.L.Prabhu	Energy conservation using PIR sensor	Cornerstone Automation	0.14	23.03.2021			
7	Dr.M.Prabhahar	Application of IR sensors in edge detection	Cornerstone Automation	0.14	23.03.2021			
8	Prof.L.Prabhu	Design and simulation of mini radar	Cornerstone Automation	0.14	30.03.2021			
9	Mr.J.Senthil	Fabrication of automatic sewage cleaning system	Shivprema Project Consultant	0.15	23.03.2021			
10	Mr.C.Thiagarajan	Fabrication of hybrid electric vehicle	Shivprema Project Consultant	0.27	23.03.2021			
11	Mr.M.Saravanan	Fabrication of remote operated solar water irrigation system	Shivprema Project Consultant	0.15	24.03.2021			
12	Mr.N.Shivakumar	Fabrication of hexapod spy robot	Shivprema Project Consultant	0.12	24.03.2021			
13	Mr.S.Sathiyaraj	Fabrication of seed sower system	Shivprema Project Consultant	0.135	24.03.2021			
14	Mr.P.Kumaran	Fabrication of 2 wheel powered fork lifter	Shivprema Project Consultant	0.18	26.03.2021			
15	Mr.R.Praveen	Fabrication of automatic hand braking release system in 4 wheelers	Shivprema Project Consultant	0.15	26.03.2021			
16	Dr.S.Sangeetha	Fabrication of automate wheel chair	Shivprema Project Consultant	0.27	26.03.2021			
17	Mr.B.Selvababu	Fabrication of emergency braking system	Shivprema Project Consultant	0.15	29.03.2021			
18	Mr.B.Samuvel Michael	Design and fabrication of line follower robot	Nil	0.04	30.03.2021			





	FACULTY DEVELOPMENT PROGRAMME - ATA					
S.NO	Name	Title of the FDP	From date	To date	Duration	Organized by
1	Prof. Prabhu L	CFD	4.01.2021	8.01.2021	5 Days	LBS College Of Engineering
2	Prof. Prabhu L	Robotics	18.01.2021	22.01.2021	5 Days	Ramakrishnan College Of Engineering
3	Mr.N.Lakshminarayanan	Energy Storage	27.10.2020	31.10.2021	5 Days	IIITDM, Kanchipuram
4	Mr.K.Surendra Babu	Robotics	18.01.2021	22.01.2021	5 Days	Ramakrishnan College Of Engineering
5	Dr.S.Sangeetha	CFD	04.01.2021	08.01.2021	5 Days	LBS College Of Engineering
6	Dr.S.Sangeetha	Robotics	18.01.2021	22.01.2021	5 Days	Ramakrishnan College Of Engineering
7	Mr.C.Thiagarajan	Robotics	18.1.2021	22.01.2021	5 Days	K Ramakrishanan College Of Engineering
8	Mr.C.Thiagarajan	Alternate Fuels	8.02.2021	12.02.2021	5 Days	A D Patel Institute Of Technology
9	Mr.J.Senthil	Robotics	18.01.2021	22.01.2021	5 Days	K Ramakrishanan College Of Engineering
10	Mr.J.Senthil	Alternate Fuels	08.02.2021	12.02.2021	5 Days	A D Patel Institute Of Technology
11	Mr.S.Ashokkumar	Novel Materials	04.01.2021	08.01.2021	5 Days	Malaviya National Institute Of Technology Jaipur
12	Mr.A.Elanthiraiyan	Novel Materials	04.01.2021	08.01.2021	5 Days	Malaviya National Institute Of Technology Jaipur
13	Mr.A.Elanthiraiyan	Electric Vehicles	08.02.2021	12.02.2021	5 Days	KPR Institute Of Engineering And Technology
14	Mr.B.Samuel Michael	Electric Vehicles	04.01.2021	08.01.2021	5 Days	K S Rangasamy College Of Technology
15	Mr.G.Antony Casmir	Additive Manufacturing	16.02.2021	20.02.2021	5days	HICET
16	Mr.G.Antony Casmir	Product Design	04.01.2021	08.01.2021	5days	College Of Engineering Thiruvananthapuram
17	Mr.A.Senthil Kumar	Robotics	18.1.2021	22.01.2021	5 Days	K.Ramakrishnan College Of Engineering
18	Mr.P.Kumaran	Robotics	18.1.2021	22.01.2021	5 Days	K Ramakrishanan College Of Engineering
19	Mr.P.Kumaran	Electric Vehicles	08.02.2021	12.02.2021	5 Days	KPR Institute Of Engineering And Technology.
20	Mr.S.Kalyana Kumar	Electric Vehicles	08.02.2021	12.02.2021	5 Days	KPR Institute Of Engineering And Technology
21	Mr.M.Saravanan	CFD	04.01.2021	08.01.2021	5 Days	Lbs College Of Engineering
22	Mr.M.Saravanan	Robotics	18.01.2021	22.01.2021	5 Days	Ramakrishnan College Of Engineering

	FACULTY DEVELOPMENT PROGRAMME - UNIVERSAL HUMAN VALUES (UHV)						
S.No	Name	Title of the FDP	From date	To date	Duration	Organized by	
1	Prof. Prabhu L	Inculcating Universal Human Values in Technical Education	17.05.2021	21.05.2021	5 days	AICTE	
1	Dr.M.Prabhahar	Inculcating Universal Human Values in Technical Education	31.05.2021	4.06.2021	5 days	AICTE	
2	Mr.N.Lakshminarayan	Inculcating Universal Human Values in Technical Education	7.06.2021	11.06.2021	5 days	AICTE	
4	Dr.S.Sangeetha	Inculcating Universal Human Values in Technical Education	17.05.2021	21.05.2021	5 days	AICTE	
5	Mr.C.Thiagarajan	Inculcating Universal Human Values in Technical Education	31.05.2021	4.06.2021	5 days	AICTE	
6	Mr.J.Senthil	Inculcating Universal Human Values in Technical Education	31.05.2021	4.06.2021	5 days	AICTE	
7	Dr. S Prakash	Inculcating Universal Human Values in Technical Education	31.05.2021	4.06.2021	5 days	AICTE	

	FACULTY DEVELOPMENT PROGRAMME - NITTTR						
S.No	Name	Title of the FDP	From date	To date	Duration	Organized by	
1	Dr.D.Bubesh Kumar	AICTE-NITTT orientation training programme for mentors					
1	Dr.M.Prabhahar	AICTE-NITTT orientation training programme for mentors	09.02.2021	13.02.2021	5 days	NITTTR, Kolkata	
2	Mr.N.Lakshminarayanan	AICTE-NITTT orientation training programme for mentors	04.01.2021	08.01.2021	5 days	NITTTR, Chennai	
3	Mr.N.Lakshminarayanan	Blended and flipped mode of training	02.03.2021	06.03.2021	5 days	NITTTR, Chennai	
4	Dr.S.Sangeetha	AICTE-NITTT orientation training programme for mentors	09.02.2021	13.02.2021	5 days	NITTTR, Kolkata	
5	Mr.C.Thiagarajan	AICTE-NITTT orientation training programme for mentors	05.04.2021	09.04.2021	5 days	NITTTR, Kolkata	
6	Mr.J.Senthil	AICTE-NITTT orientation training programme for mentors	05.04.2021	09.04.2021	5 days	NITTTR, Kolkata	
7	Mr.S.Ashokkumar	AICTE-NITTT orientation training programme for mentors	19.4.2021	23.04.21	5 days	NITTTR, Kolkata	
8	Mr.R.Mahesh	Solar, wind and bio energy applications	04.01.2021	08.01.2021	5 days	NITTTR, Chennai	
9	Mr.R.Mahesh	Quality assurance through accreditation	28.12.2020	01.01.2021	5 days	NITTTR, Chennai	



















SWAYAM -NPTEL COURSES COMPLETED BY FACULTY Certificate Type S.No Name **Course Name** Dr. M Prabhahar Engineering drawing and computer graphics Elite+Gold Elite+Silver Mr. Elanthiraiyan A Work system design Mr. S Ashokkumar Work system design Elite+Silver Dr. S Prakash Engineering drawing and computer graphics Elite+Silver Mr. Senthil J Engineering drawing and computer graphics Elite+Silver Mr. Kalyanakumar S Engineering drawing and computer graphics Elite+Silver Mr. A Imthiyas Theory of production processes Elite+Silver Mr. A Imthiyas Engineering drawing and computer graphics Elite+Silver Mr. Thiagarajan C Engineering drawing and computer graphics Elite+Silver Mr. S Ashokkumar Engineering drawing and computer graphics Elite+Silver 10 Mr. Senthil J Theory of production processes Elite+Silver Engineering drawing and computer graphics Mr. P Kumaran Elite+Silver Mr. Elanthiraiyan A Fundamental of welding science and technology Elite Dr. Sangeetha .S Theory of production processes Elite 14 Elite Mr. Kalyanakumar S Theory of production processes Mr. Lakshminarayanan.N Manufacturing systems technology I & II Elite Dr. M Prabhahar Theory of production processes Elite Mr. Vijayakumar K Fundamentals of automotive systems Elite Mr. Vijayakumar K Theory of production processes 19 Elite Mr. Thiagarajan C Theory of production processes Elite Mr. Selva Babu B **Engineering metrology** Elite Mr. Lakshminarayanan Automation in manufacturing Elite Prof. L Prabhu Advanced machining processes Elite Mr. Sathiyaraj S Rapid manufacturing Elite Prof. L Prabhu Theory of production processes Elite Mr. S Ashokkumar Introduction to composites Elite 26 Dr. Sangeetha.S Advanced machining processes Elite 28 Mr. Sathiyaraj S Theory of production processes Elite 29 Mr. Saravanan M Engineering drawing and computer graphics Elite Mr. K Surendrababu Theory of production processes Elite 30 Mr. Saravanan M Elite Theory of production processes Mr. Samuvel Michael B Waste to energy conversion Successfully Dr. S Prakash Theory of production processes Successfully Successfully Mr. P Kumaran Energy conservation and waste heat recovery Mr. Praveen R Engineering drawing and computer graphics Successfully 36 Mr. R Mahesh Energy conservation and waste heat recovery Successfully Mr. Samuvel Michael B **Robotics** Successfully







































Naveen P

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	SWAYAM -	NPTEL COURSES COMPLETED	BY STUDENT
S.NO	Name	Course Name	Certificate Type
1	Ammar Ahmed Pasha	Work system design	Elite+Gold
2	Surendhar S	Rapid manufacturing	Elite
3	Elroy G Ambadan	Work system design	Elite
4	Muhammed Arshid PK	Rapid manufacturing	Elite
5	Shijo John	Rapid manufacturing	Elite
6	Aravind Krishna B	Computer integrated manufacturing	Elite
7	Abhijith K Menon	Computer integrated manufacturing	Elite
8	Abhijith Sukesan	Theory of production processes	Elite
9	Rahul Charles	Theory of production processes	Elite
10	Hansal Shanty	Work system design	Elite
11	Ammar Ahmed Pasha	Principles of industrial engineering	Elite
12	Willium Mathew Varghese	Rapid manufacturing	Elite
13	Varun Jayaraj TV	Rapid manufacturing	Elite
14	Ashvith Kotian	Theory of production processes	Elite
15	Sreekanth S	Rapid manufacturing	Elite
16	Rakesh Babu R	Rapid manufacturing	Elite
17	Rony Abraham James	Fundamentals of automotive systems	Successfully completed
	Nidhin S Kumar	Inspection and quality control in manufacturing	Successfully completed
19	Akarsh V	Computer integrated manufacturing	Successfully completed
20	Anson Antony	Work system design	Successfully completed
21	Arjun K S	Work system design	Successfully completed
22	Sachin Sampath	Theory of production processes	Successfully completed
23	Aswin Raveendran	Theory of production processes	Successfully completed
24	Brezen Babu	Work system design	Successfully completed
25	Gokul N	Work system design	Successfully completed
26	Vishnu V	Rapid manufacturing	Successfully completed
27	Adarsh R	Computer integrated manufacturing	Successfully completed
28	Sourab V	Theory of production processes	Successfully completed
29	M Arun Murugan	Fundamentals of automotive systems	Successfully completed
30	Sreeju S Nair	Rapid manufacturing	Successfully completed
31	Jerish K George	Computer integrated manufacturing	Successfully completed
32	Sathya Narayanan B R	Theory of production processes	Successfully completed
33	Varun P	Theory of production processes	Successfully completed
34	Sayooj	Theory of production processes	Successfully completed
35	Abhijith U	Theory of production processes	Successfully completed
36	Pranav C	Theory of production processes	Successfully completed
37	Santhosh G	Theory of production processes	Successfully completed
38	Mubashir Rasheed Kuniyan	Theory of production processes	Successfully completed
39	Mohamed Fakkir Ansari	Computer integrated manufacturing	Successfully completed
40	Alan Sam Oommen	Engineering drawing and computer graphics	Successfully completed
41	Adithyan P	Engineering drawing and computer graphics	Successfully completed
42	Akhil Vinayan V B	Engineering drawing and computer graphics	Successfully completed
43	Jestin Jacob C	Computer integrated manufacturing	Successfully completed
44	M Arun Murugan	Theory of production processes	Successfully completed
45	Aravind Krishna B	Manufacturing systems technology I & II	Successfully completed
46	Vattakottil Abhishek Sadanandhan	Manufacturing systems technology I & II	Successfully completed
47	Akshay Surendran	Energy conservation and waste heat recovery	Successfully completed
48	Sachin A Mathew	Energy conservation and waste heat recovery	Successfully completed

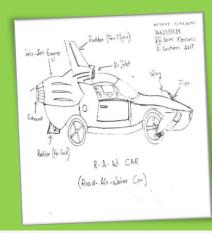
IC engines and gas turbines

Successfully completed















COVID-19

Only here, Positive means the bad,I am referring to the virus, which the world have had. It was the year of 2020.

Life was good, jobs and social lives were aplenty.

However then the Coronavirus struck, and then the world ran out of luck. It spread like a raging forest fire, Even across countries' borders it did not tire.

Cases were on the rise and our leaders were busy in telling lies.

Bringing death and hospital system overwhelm, Testing world leaders at the helm. Old peoples were dying like flies, There were not enough care supplies. Hospitals were full and the cases were on a high rise.

Soon enough we were ordered to be back in our homes,

Waiting for updates through news and phones.

Social distancing became the norm,we stayed home and were keen to conform.

Time in the first lockdown was nice for some, Connecting with family and having lots of fun. The second wave hit again after the people started to come outside and roam. Many lost their lives and family had to moan.

Most people felt that corona had gone, Started partying, inviting the corona more. People flocked to get tested, wasting hours in line, Even with no symptoms and feeling fine. Seems some have forgotten the rules this time around, But I'm sure,we will come out of this dreadful wound.

Hopefully we can end this deadly spread, then we can continue to socialise, travel and trade. Get yourself vaccinated and be prepared for the third wave. This is the only way through which, the world can be saved.

Have nothing much to ask, There are few very very simple tasks,

Wash your hands regularly,use sanitisers and wear your mask.

~FAIZAN AHMAD~ Reg.No.-3441710512 B-tech, Mechanical,IVth year

Plastic plastic everywhere, But most of us are not aware.

The danger cause to human care, So atleast you be aware.

Abandoned them anywhere, Vanish them everywhere.

Use them very rare. Always have lots of care.

Dumping plastic is not so fair, Recycle them, if you really care.

Please don't forget to share, To be eco-friendly everywhere.

So always you make it clear, That Plastic is a danger everywhere.

~FAIZANAHMAD~ IV Year Mechanical

The Bookman Speaks



Tanweer shahid

B.E. Mech (2009-2013)

Hi, this is Tanweer Shahid and working in LG Electronic as Sr.Engineer, when I join the campus, I was so much passionate and curious to know the new things and do the experiment, in college every semester I do the projects to learn and understand the real engineering, where all faculty members really helped and encouraged me to, it happened because of good faculty members and better lab facilities available in our campus.



Swarupa Chatterjee

B.E. Mech (2006-2010)

I am proud alumni of AVIT and especially because of my stream. Mechanical Engineering! I feel fortunate to have association with this department, which had amazing well experienced faculty members, well equipped laboratories and competitive.



Satyam Vishwakarma

B.E. Mech (2007-2013)

Hello everyone, this is Satyam Vishwakarma. Currently I'm working as a Design Engineer at Jindal Prefab Pvt Ltd. Haryana. First of all our time in AVIT was the best thing in my life. Our faculty members made studying easy & fun. Lab experiments experience still helps in working with other tools & equipment. I miss too much being at AVIT Campus & mates. AVIT taught me that how to handle our problems, even if I don't have the answer.



Mervin Sharon

B.E. Mech (2015-2019)

Hi this is Mervin Sharon and I'm working as CAE crash and occupant safety analyst. I joined to AVIT for my BE mechanical engineering in 2015-2019 batch. My journey at IT the past 4 years has been absolutely amazing and the college faculty and administration have supported me and my endeavors throughout. The curriculum is updated according to the new developments. The quality of teaching is outstanding. The latest curriculum is followed and it is top notch. .The teachers are very supportive and companionable . The staffs are very well experienced and educated . The syllabus covered is opt and meets the requirements of today's industry. Guide us throughout the year and help to accomplish our goals. Practical orientated classes and labs. Great notes. Easy access to faculties and friendly in nature. The college regularly organizes workshops and competitions to help students learn new skills. Various workshops and sessions held, improved my technical as well as interpersonal skills.IT has given me a chance to participate in various committees to organize events and broaden my network. The campus infrastructure is very excellent. I got impressed for the infrastructure and the classrooms are very environmentally suitable. I love very well. All the facilities are available in labs, classrooms and canteen. Daily they used to clean classrooms and roads in college and they maintained as well. All are purely hygienic and very clean . The placement cell is very supportive and takes care of us individually. They make us prepare for placement by giving classes separately for placement . Help students to get internships in various companies. Faculties are having good industrial connections, who can help the students to get the internships. Thank you AVIT.

