Nawab Shah Alam Khan
COLLEGE OF ENGINEERING & TECHNOLOGY

BE: CE,ME,EEE,ECE,CSE,IT - ME: CSE, Embedded Sys, Structural, HVAC - Polytechnic: CE,ME,EEE,ECE

Approved by AICTE | Affiliated to OU | Accredited to NAAC | Permitted by Govt. of TS | Included in 2F UGC

MECHANICAL ENGINEERING

NSAKCET
Department of
MECHANICAL ENGINEERING

2019-2020

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COLLEGE OF ENGINEERING & TECHNOLOGY

Affiliated to OU | Approved by AICTE | Accredited by NAAC | Permitted by Govt. of TS | Included in 2F UGC | Registered with TASK | Cisco Networking Academy

Mechanical Engineering Department
Hyderabad, Telangana, India

Presents

Mechnopedia

Technical Article

2019 - 2020

1. MOHAMMAD ZAKIUDDIN.
2. MOHD AKBAR SHAREEF.
3. MD SYED AALAM.

Student Co-ordinator

1. Mohammed Taher.
2. Ahmed Hussain.
3. Syed Aamer Ur Rahman.
4. Shaik Hussain.

Objective of this program is to introduce participants about the recent innovation in Mechanical Engineering and allied areas. This program covers the related fields comprising of design, manufacturing, energy, automation, robotics. Its also focuses on Entrepreneurship development through these Innovations in Mechanical Engineering. There are numerous ways to get into entrepreneurship for mechanical engineers. small-scale businesses in the light engineering industry can be considered as a profitable investment opportunity.

ONE WEEK FACULTY DEVELOPMENT PROGRAM FROM 29 JUNE – 05 JULY 2020

Innovation has the potential to add colossal value to practically everything and anything – it doesn't always have to be of monetary value which is why it plays such an important role in engineering. It can strengthen market uptake of raw materials solutions and build a bigger platform for a greener future.

Engineers work to improve society, and not just for the benefit of the local community, but the planet as a whole. Over the last few years, there's been a rise in developing sustainable innovative solutions, from e-mobility and new battery technology for greener, more sustainable cities, to alternative energy sources and robotics for sustainable mining technology. Without innovation in these areas, modern life wouldn't be possible.

Although there's still a long way to go in developing and implementing these innovative technologies and processes in order to overcome societal challenges, such as the recycling and substitution of raw materials, it's important that the next generation of engineers are trained in innovation and are able to use their entrepreneurial mindset to design, create and implement a favorable future – economically, socially and, especially, environmentally.

"Innovation is the specific instrument of entrepreneurship. The act that endows resources with a new capacity to create wealth."
Peter Drucker

VISION AND MISSION OF THE INSTITUTE

VISION

To impart quality technical education with strong ethics, producing technically sound engineers capable of serving the society and the nation in a responsible manner.

MISSION

M1: To provide adequate knowledge encompassing strong technical concepts and soft skills thereby inculcating sound ethics.

M2: To provide a conductive environment to nurture creativity in teaching- learning process.

M3: To identify and provide facilities which create opportunities for deserving students of all communities to excel in their chosen fields.

M4: To strive and contribute to the needs of the society and the nation by applying advanced engineering and technical concepts

VISION AND MISSION OF MECHANICAL ENGINEERING DEPARTMENT

VISION

To achieve excellence in Mechanical Engineering by imparting technical and professional skills along with ethical values to meet social needs via industrial requirements.

MISSION

M1: To offer quality education with the supportive facilities to produce efficient and competent engineers through industry-institute interaction.

M2: To prepare the students with academic excellence, professional competence, and ethical behavior for a lifelong learning.

M3: To inculcate moral & professional values among the students to cater the needs of the society and environment.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO 1: Graduates will apply their engineering knowledge and problem solving skills to design mechanical systems and processes.

PEO 2: Graduates will embrace leadership skills at various roles in their career and establish excellence in the field of Mechanical Engineering.

PEO 3: Graduates will provide engineering solutions to meet industrial requirements there by full fill societal needs

PROGRAM OUTCOMES (POs)

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

1. **Problem analysis:** Identify, formulate review research literature and analyze complex engineering problems reaching substantiated conclusions using first principle of mathematics, natural science and engineering science.

2. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

3. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

4. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

5. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

6. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

7. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

8. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

9. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

10. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

11. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

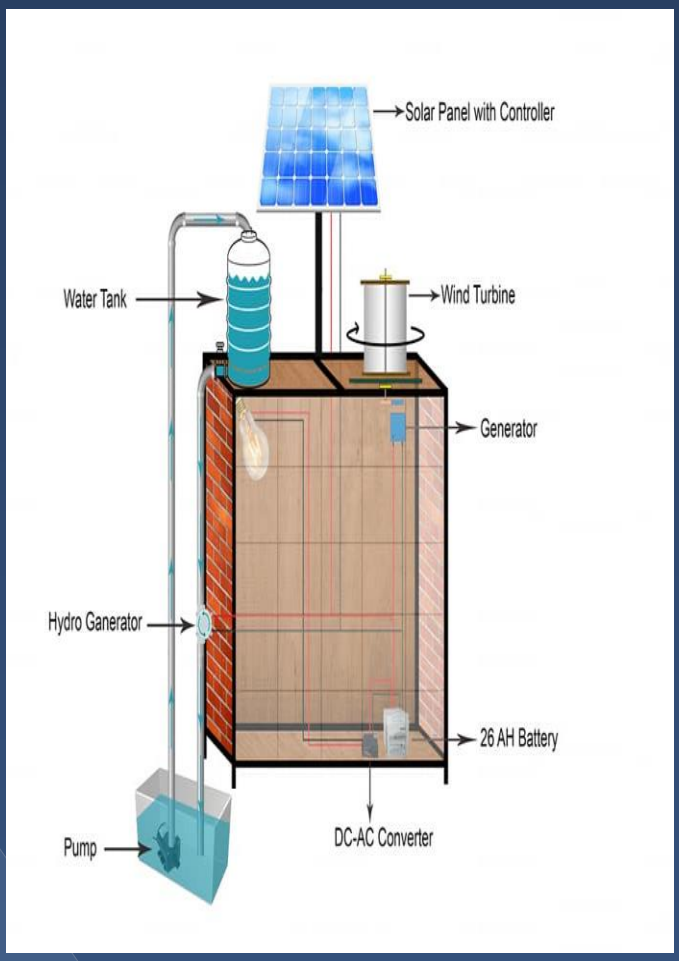
PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO-1: Implement new ideas on product design and development with the help of modern computer aided tools, while ensuring best manufacturing practices

PSO-2: Impart technical knowledge, ethical values and managerial skills to make successful in career.

PSO-3: Develop innovative attitude, critical thinking and problem solving approach for any domains of mechanical engineering

Final Year Major Project



Project Increase in demand of electricity these days require more power generation which cannot be able to produce by conventional energy source due to environmental conditions and depletion of fossil fuels. To overcome this we have to switch from conventional to non-conventional energy resource. In this project combination of three renewable energy sources take place i.e.. wind solar and hydro energy to generate electricity which never been used by anyone to generate hybrid power using this sources simultaneously,
This process give the enduring energy resources without damaging the nature with less maintenance & at low cost.

Also this project submitted for Research paper in International Research journal of Engineering and technology (IRJET) 4th year Major project work on " HYBRID POWER GENERATION USING SOLAR WIND AND ENERGY" by a Mechanical Engineering Students on **1-May-2020.**

1. MOHAMMED FURQAN HUSSAIN.
2. ABDUL YOUSUF KHAN.
3. MD SYED AALAM.
4. MOHAMMED NADEEMUDDIN .
5. SYED NOUMAN ALI SUFIYAN.

PROJECT under the Guidance of Asstant,Prof Syed Sadat Ali

Students Placement

Following Students of B.Tech, Mech Engg, are selected by **Laxmi Hyundai Motors as Trainee Service Advisor (TSA)** in campus Placements. Placement Drive was Conducted on 11th November 2020 at the Premises of Laxmi Hyundai.

Student list.

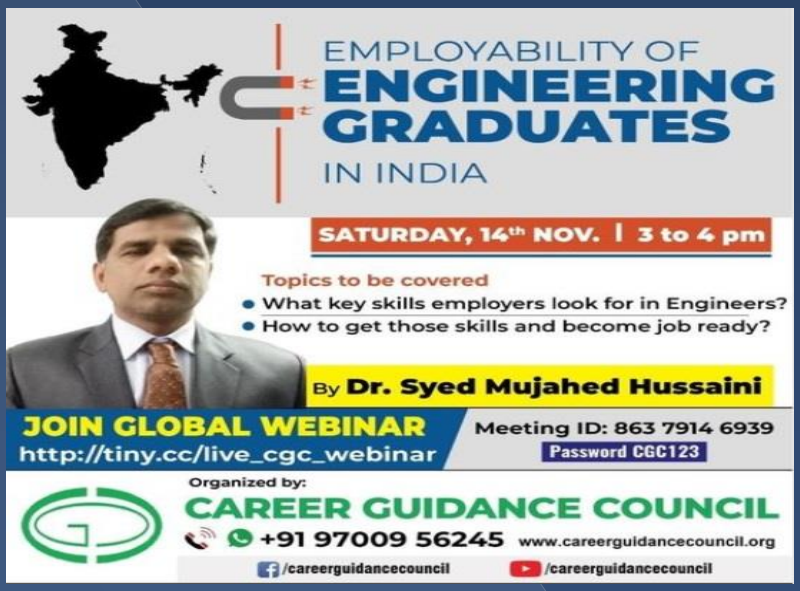
MD. TAJAMMAUL SIDDIQ Mechanical Engineering 4th Year completed 2020.

MD MUZAFARULLAH Mechanical Engineering 4th Year Completed 2020.

MOHAMMED ZUHAIB Ali Mechanical Engineering 4th Year Completed 2020.

In this Pandemic Situation too, there are huge requirements and opportunities to Mechanical Engineering Graduate. Congratulations To selected Students and Faculties of Mechanical Engineering Dept .

Webinar



Employability of Engineering Graduates in INDIA .

Speaker :- Dr. Syed Mujahed Hussaini. Prof & head of Mecahical Engineering .

Nawab Shah Alam Khan College of Engineering and Technology,

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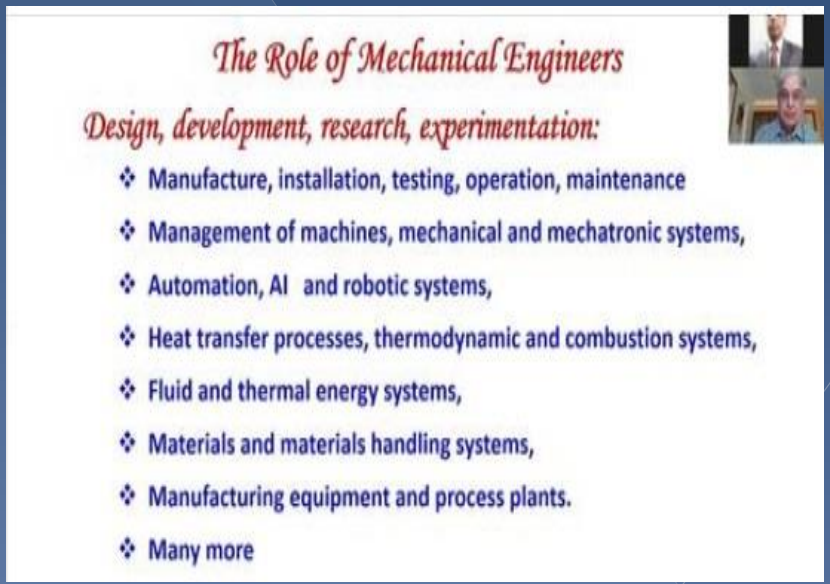
Webinar

Opportunities and challeges for Mechanical Engineers in 21st Century

Speaker :- Padma Bhushan Prof. BN Suresh Chancellor , IIST Trivendram and former Director, VSSC-ISRO, Govt of India.



Workshop

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Career Guidance Workshop

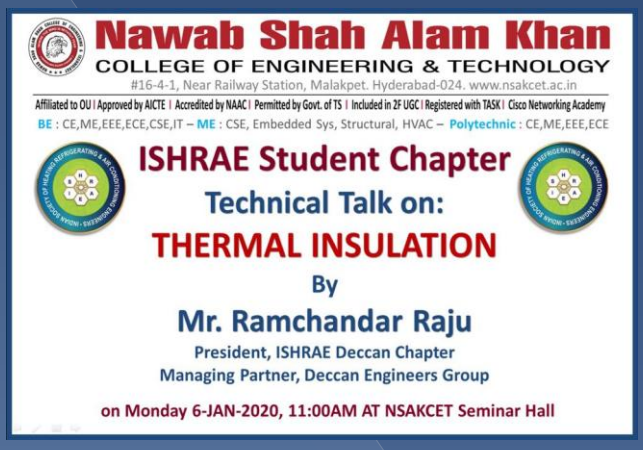
Higher Education Opportunities & Skills for the Future Jobs

Dr. Syed Mazharuddin
Technology Evangelist
Ara Institute of Canterbury, New Zealand

@10:30AM, 14-Feb-2020, NSAKCET Seminar Hall

Speaker :- Dr. Syed Mazherudding , Technology Evangelist, Ara Institute of Canterbury , New Zealand, Address Final Year Students all Branches at NSAKCET on Higher Education Opportunities & Skills for the Future Jobs on 14th – Feb – 2020 at Seminar Hall.

ISHRAE STUDENT DECCAN CHAPTER INSTALLATION CEREMONY 219-2020



Workshop

ISHRAE Students Chapter Installation Ceremony was Conducted by Mechanical Engineering Department at Nawab Shah Alam Khan College Of Engineering & Technology at Seminar Hall

Mr. GOPINATH LOVU (Students Chair, ISHRAE Deccan Chapter) Assistant Professor, Gokaraju Rangaraju Engineering College.

Mr. RAMCHANDAR RAJU (President, ISHRAE Deccan Chapter) managing Partner, Deccan Engineers Group)

Dr. SYED MUJAHED HUSSAINI, Professor & Head of Mechanical Engineering Department. Nawab Shah Alam Khan College OF Engineering & Technology.

RAZA AHMED KHAN, Faculty Advisor & Member of Indian Society Of Heating , refrigeration & Air Conditioning Engineers, Associate Professor. Of Mechanical Engineering Department. Nawab Shah Alam Khan College OF Engineering & Technology.

The Following Elected for the Students Chapter listed Below.

Prsident :- Syed Junaid Uddin.
Vice President : Mohammed Kaleemullah.
Secretary : Mirza Shujathullah Baig.
Teasurer : Mujeeb Ahmed.

Webinar Series on "Emerging Trends & Opportunities in HVAC"

Participant learned Energy conservation measures in HVAC system and cleared their doubts.

2nd talk participant learn how ECBC compliance in HVAC system

3rd talk on Benefits and operational of Green Building and its Applications

5th talk on Thermal Insulation for HVAC System, type of Insulation and its

4th talk on Dynamics of Ducts Airflow through a duct system creates three types of pressures: static, dynamic (velocity), and total.

Talk on Covid-19 Guidelines for HVAC systems in Buildings as per ISHRAE and safety factors

6th talk on IAQ covered many topics Advanced ventilation design tools such as the modeling of computational fluid dynamic and regulation , contaminants, sources, building materials and system models .

9th talk on MEP services and BMS applications

10th talk Project management HVAC for Improving productivity of software testing in select organization

Industrial Visit

Industrial Visit to RSP Air Products Pvt. Ltd.
At Cherla pally for ISHRAE Students Members

ISHRAE Student Chapter of Mechanical Engineering Department at Nawab Shah Alam Khan College of Engineering and Technology.

We had an alternate seating arrangement among other students which gave us the different experience. We were given a break of 2 minutes to interact with the neighboring students which was a good opportunity for us to learn how to interact with unknown people in a short period of time. The main intention of this task is to make the students to get the knowledge of communicating in an effective way once we enter the companies.

We had fun filled throughout the journey and we reached the college campus back

At the end of the day we had a good experience and learnt many things from the visit.

Industrial Visit

Industrial Visit to Veljan Hydrair Limited Balanagar. On 05 - 09 - 2019 for 3rd year and Final Year Students of Mecahnical Engineering.

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Industrial Visit

Students Mechanical Engineering had an opportunity to visit the MASQATI Diary farms & Diary on 19th of August, 2019 under the guidance of Dr. Syed Mujahed Hussaini, Associate Professor Raza Ahmed Khan. & Assistant Professor Mohammed Taher. The visit was very exciting and informative and the students learned the various aspects involved in Production like inventory management, product design and preparation, control, packaging and distribution.

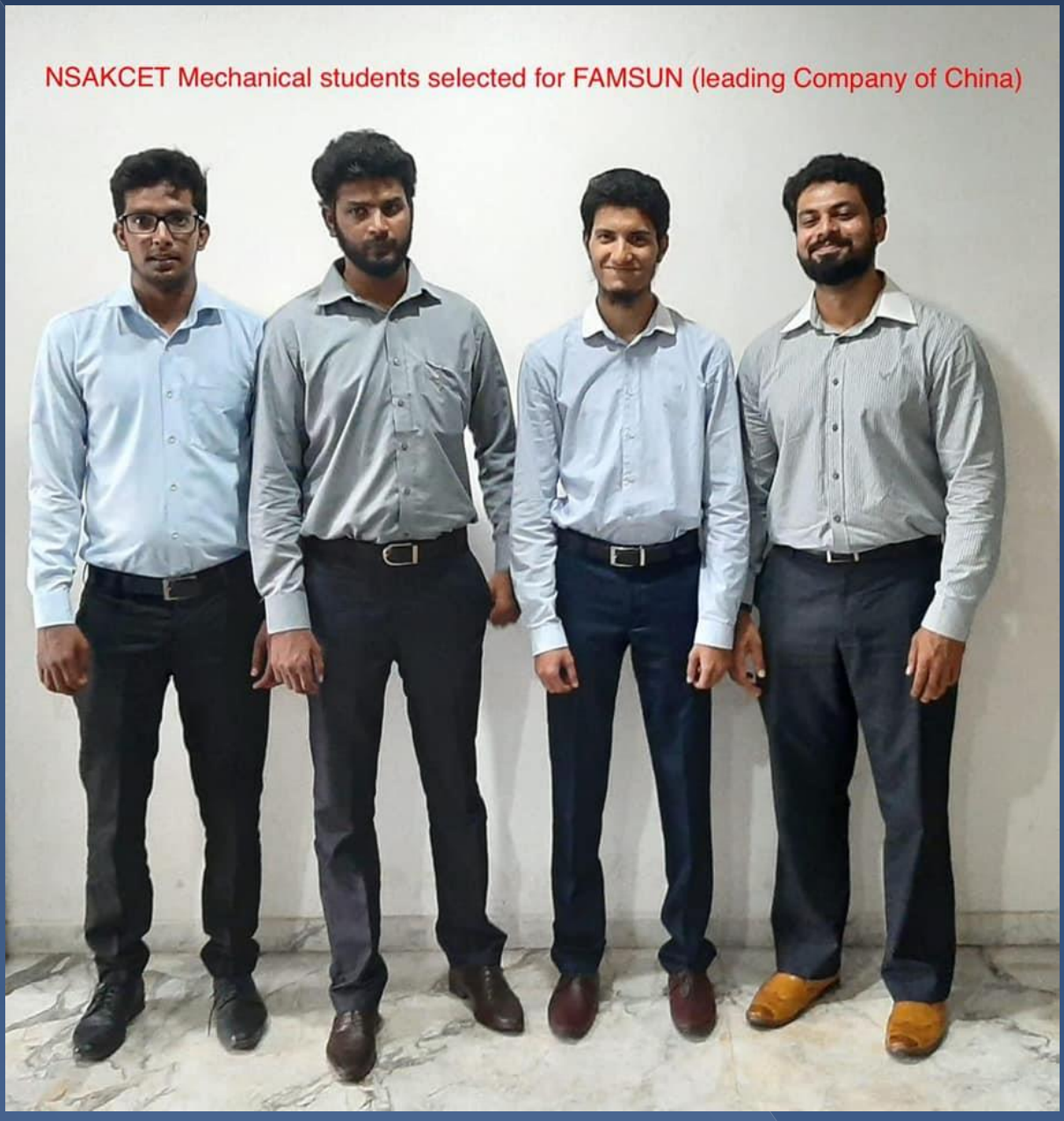
MASQATI DIARY LTD is a family run business into Diary farms and Diary products for the past 40 years and caters majorly to old city region & other parts of Hyderabad. MASQATI DIARY is a renowned name in Hyderabad in terms of quality and taste and is a 100 crs turnover company. MASQATI DIARY LIMITED is into production of Toned, Double toned and skimmed Milk, Ice creams, Flavored milk,Lassi, Ghee, Paneer, Curd, Butter etc.

The chief Engineer of MASQATI DIARY, accompanied the students during the visit that guided the tour and gave an insight into the entire production process and the various processing facilities and technologies they are using. The students were taken step by step through the various mechanisms in the factory and each process for all the different kinds of diary products were explained in detail. The packaging, Quality control and testing are explained in great detail which shows how much they adhere to the value of customer's well-being and trust. The students were also briefed about their project and business plans. He concluded by explaining about their future expansion projects and how they are planning to expand their market share & promotional activities.

The students had great fun when they were shown through their various cold storages at -23 degrees. The students were given free samples of their Ice creams, flavored milk and other products.

It was a great learning experience for students in terms of knowledge and also the practical considerations and problems for such industries.

Campus Placement



Congratulation to the Above Students got Campus Selection At FAMSUN CHINESE Leading Company on Various Position.

Interview was Held on 16th – September – 2019 at College Campus Nawab Shah Alam khan College of Engineering & Technology.

SHAHEED AFRID 2019 Completed Mechanical Engineering.

MD MAIRAJ 2016 Completed Mechanical Engineering.

WALEED SYED ABBAS 2016 Completed Mechanical Engineering.

SYED ABDUL JABBAR 2016 Completed Mechanical Engineering