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DRONE BY NOKIA



Nokia Drone Networks, powered by the Nokia Digital Automation Cloud, is an end-to-end solution comprising Nokia drones, private and secure mobile broadband, cloud connectivity, and a control center. The solution enables a fleet of drones to fly on automated individual missions steered from the command and control center, collecting data and information to meet business needs related to security and transport for example, and to facilitate operations in mission critical situations, like in public safety. The drones are connected over a private, high capacity mobile broadband network, ensuring they remain unaffected by congestion in the public network and may also be operated manually if needed. Nokia drones can be equipped or enhanced in many ways such as with the addition of cameras or sensors. The Nokia dual camera gimbal has mounted HD video and thermal video cameras. The drone can also be equipped with a mounted still camera, as well as loud speakers, search lights, customizable sensors for smoke, motion, radiation, and more. Adoption of aerial drones and drone technology is growing in select industries like agriculture, construction, mining, public safety and first responders, oil & gas, telecommunications and utilities. Typical use cases include drone missions, data communication, embedded Push-To-Talk, tactical bubbles in vehicles, vessels and helicopters, and anywhere an instant network and services are needed in isolated mode.

HEATING, VENTILIZATION, & AIR CONDITIONING (HVAC)



Heating, ventilation, and air conditioning (HVAC) is the technology of indoor and vehicular environmental comfort. Its goal is to provide thermal comfort and acceptable indoor air quality. HVAC system design is a sub-discipline of mechanical engineering, based on the principles of thermodynamics, fluid mechanics and heat transfer. "Refrigeration" is sometimes added to the field's abbreviation, as HVAC&R or HVACR or "ventilation" is dropped, as in HACR (as in the designation of HACR-rated circuit breakers). HVAC is an important part of residential structures such as single family homes, apartment buildings, hotels and senior living facilities, medium to large industrial and office buildings such as skyscrapers and hospitals, vehicles such as cars, trains, airplanes, ships and submarines, and in marine environments, where safe and healthy building conditions are regulated with respect to temperature and humidity, using fresh air from outdoors. Ventilating or ventilation (the V in HVAC) is the process of exchanging or replacing air in any space to provide high indoor air quality which involves temperature control, oxygen replenishment, and removal of moisture, odors, smoke, heat, dust, airborne bacteria, carbon dioxide, and other gases. Ventilation removes unpleasant smells and excessive moisture, introduces outside air, keeps interior building air circulating, and prevents stagnation of the interior air. Ventilation includes both the exchange of air to the outside as well as circulation of air within the building. It is one of the most important factors for maintaining acceptable indoor air quality in buildings. Methods for ventilating a building may be divided into mechanical/forced and natural types.



INSTITUTION OF ENGINEERS



The Institution of Engineers, Mechanical Engineering Student Chapter visited Neyveli Lignite Corporation India Ltd., Neyveli on 30.01.2019. They visited Mine-1 of NLCIL. They were exposed to various mining activities of coal mining. Drilling of mine importance was explained by the executives of NLCIL.

INDUSTRIAL VISIT



B. E. (Mechanical) students have visited Doddabetta Tea Factory, Ooty on 08.03.2019. During their visit, they were given first hand information of the entire tea history and processing. They have participated in a guided factory tour in which the history of tea and the different stages of tea processing like withering, crushing/ tearing/ curling (CTC), shaping, fermentation, drying, cleaning and grading were explained to them.



NSS CAMP



NSS Unit-21-Department of Mechanical Engineering organized a 7 days special program camp in Perampattu village from 23.03.2019 to 29.03.2019. In that program, NSS students interacted with the village peoples and the village students to motivate about tree plantation and hazards in plastics. NSS students participated in many social activities and play cricket to entertained the village peoples.

INPLANT TRAINING



B. E. (Mechanical) 2016-2020 batch of III year, VI semester students participated an inplant training program in Neyveli Lignite Corporation India Ltd., Neyveli on various dates The participated students were K. Ajith Kumar, N. Arun Kumar, A. S. Mohamed Asardeen, M. Manivarman, V. P. Joshua Ashvinth Roys, S. Muhammad Muzammil, H. Mohamed Yusuf, M. Mohamed Iliyas, M. Praveen, R. Harenthiranath, R. Neelakandan, K. Arul, M. Mohamed Thajmeel, P.Pradeep, S. Rogash Babu, D. Hariram, E. Niranjan, S. Mohamed Imran, S. Santhakumar, S. Gowtham, J.Kamalesh, Mohamed Gelle Said, Abdirahman, and R. Arunkumar.

PLACEMENT AND TRAINING



The placement and training cell of Faculty of Engineering and Technology conducted a summer internship program for the I year students from 20. 05. 2019 to 07. 06. 2019. In that program students interacted with the training staffs and exposed under various training activities such as self introduction, group discussion, and one-on-one interview. The importance of the hole interview process explained by the training staffs of placement and training cell, FEAT, AU.

INTERNSHIP PROGRAM



M. E. (Thermal Power Engineering) students participated internship program in Neyveli Lignite Corporation India Ltd., Neyveli on 04. 06. 2019. The participated students were P. Ajithraj, G. Vignesh, D. Saravanan, M. Karthikeyan, V. Elangkathir, P. Naveen, and S. Kumaravel.



DEPARTMENT OF MECHANICAL ENGINEERING

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VISION:

The Mechanical Engineering Department endeavors to be recognized globally for outstanding education and research leading to well-qualified engineers who are innovative, entrepreneurial and successful in advanced fields of Mechanical Engineering to cater to the ever changing industrial demands and social needs.

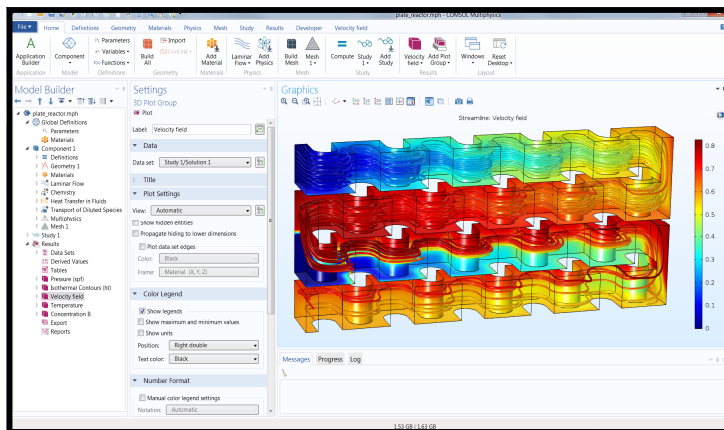
MISSION:

1. Prepare the graduates to pursue life-long learning, serve the profession and meet the intellectual, ethical and career challenges.
2. Extend a vital, state-of-the-art infrastructure to the students and faculty with opportunities to create, interpret, apply and disseminate knowledge.
3. Develop the student community with wider knowledge in the emerging fields of Mechanical Engineering.
4. Provide set of skills, knowledge and attitude that will permit the graduates to succeed and thrive as engineers and leaders.
5. Create a conducive and supportive environment for all round of growth of the students, faculty and staff.

PROGRAM EDUCATIONAL OBJECTIVES:

1. Prepare the graduates with a solid foundation in Engineering, Science and Technology for a successful career in Mechanical Engineering.
2. Train the students to solve problems in Mechanical Engineering and related areas by engineering analysis, computation and experimentation, including understanding basic mathematical and scientific principles.
3. Inculcate students with professional and ethical attitude, effective communication skills, team work skills and multidisciplinary approach.
4. Provide opportunity to the students to expand their horizon beyond mechanical engineering.
5. Develop the students to adapt to the rapidly changing environment in the areas of mechanical engineering and scale new heights in their profession through lifelong learning.

COMSOL MULTIPHYSICS SOFTWARE



Engineers and scientists use the COMSOL Multiphysics software to simulate designs, devices, and processes in all fields of engineering, manufacturing, and scientific research. COMSOL Multiphysics is a simulation platform that encompasses all of the steps in the modelling workflow from defining geometries, material properties, and the physics that describe specific phenomena to solving and post processing models for producing accurate and trustworthy results. To create models for use in specialized application areas or engineering fields, you can augment COMSOL Multiphysics with any combination of add-on modules from the product suite. The interfacing product make it possible to also integrate simulation with other

engineering and mathematical software used in product and process design. When you have developed a model, you can even convert it into a simulation application with a dedicated user interface, which can be designed for a very specific use by people beyond the R&D department. Often, the key to successful engineering simulations is developing experimentally validated models that replace the use of experiments and prototypes alone, and give a deeper understanding of the studied design or process. Compared to running experimental methods or testing prototypes, modelling allows for quicker and often more efficient and accurate optimization of processes and devices. As a user of COMSOL Multiphysics, you are free from the restrictive nature generally associated with simulation software and have complete control over all aspects of your model. You can also be creative in a way that is impossible or a lot harder with traditional approaches, thanks to the ability to couple any number of physics phenomena together and input user defined physics descriptions, with associated equations and expressions, directly in the graphical user interface (GUI). Accurate multiphysics models consider a wide range of possible operating conditions and physical effects. This makes it possible to use models for understanding, designing, and optimizing processes and devices for realistic operating conditions.