

# MECHAZINE

VOL: XIX

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## SPECIAL POINTS OF INTEREST:

- TEAM KRONOS
- 3D PRINTING
- E-BIKE CHAMPIONSHIP-2K19

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## SUCCESS STORY OF TEAM KRONOS



GO-KART competition titled CHAMPION OF CHAMPIONS-2019 was organized by APSSDC and Imperial Society of Innovative Engineers (ISIE) at KL University, Vijayawada during 22nd to 25th February 2019. Team KRONOS from Vishnu Institute of Technology, Bhimavaram participated in this event and were the winners in CROSS PAD, ENDURANCE TEST & were overall second runner-up along with a cash prize of Rs 20,000/-. The management, faculty and students of the Department of Mechanical Engineering, VIT heartily congratulate the team for their efforts and achievement and wish them all success.



FOR THE RECORD, A MECHANICAL ENGINEER IS RESPONSIBLE FOR HOW JUST ABOUT ANYTHING IS BUILT. WE MAKE SURE ANY TYPE OF STRUCTURE OR VEHICLE OR ROADWAY IS STRONG, SAFE AND WILL STAY TOGETHER.

SMALL CHANGES CAN MAKE A BIG DIFFERENCE



#### *EDITOR'S VIEW:*

I am pleased to make out Volume XIX of 'MECHAZINE' which showcases the students' spirit to utilize their capability for achieving the compatibility to convert their ideas into reality. In this volume, the reader will get the taste of the Success of our team Kronos and e-Bike challenge. Also 3D Printing workshop. Being a Mechanical Engineer, each reader must be connected with different Innovative ideas they may excel their motivation to do something during their engineering journey.

## INDUSTRIAL VISITS

B. Tech Second Year (2017-21Batch) Students of Mechanical Engineering went for an educational tour to visit various industries in and around Chennai, Tamil Nadu, on 21st February 2019. First, the students visited Hyundai Motors India Limited (HMIL), which is the second largest car manufacturer and the number one car exporter in our country. It currently has nine car models across segments - EON, SANTRO, GRAND i10, ELITE i20, ACTIVE i20, XCENT, VERNA, ELANTRA, CRETA & TUCSON. HMIL's fully integrated manufacturing with advanced production, quality and testing capabilities. Current Production Capacity of HMIL is 7,00,000 cars per year & exports to around 88 countries across the world.



During the visit students viewed various sections in HMIL like- Press Shop: In this a computer-controlled line converts the sheet metal to body panels with high dimensional accuracy and consistency.

Body Shop: It is a hi-tech line that builds full body shells from panels. Automated robotic arms are used for intricate welding operations that ensure superior and consistent build quality.

Paint Shop: In this shop, customer's preferred colour is added to the body of the car by using automated robotic arms.

Assembly Shop: In Assembly Shop all the engine and suspension parts, the electrical parts, the under body parts etc are fitted into the car. The cars go through complete testing in the Assembly Shop. The Assembly Shop comprises the Trim Line, the Chassis Line, the Final Line and the OK Line.

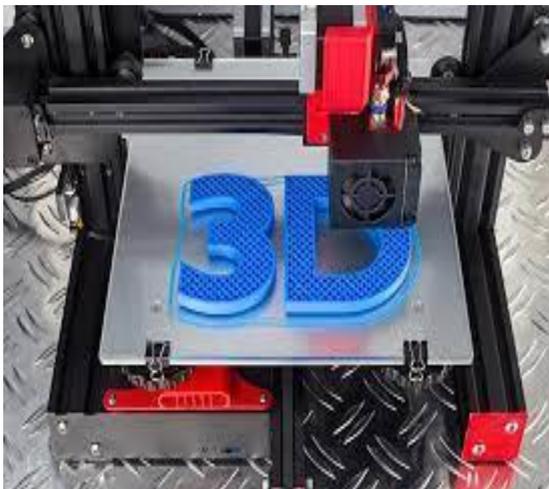
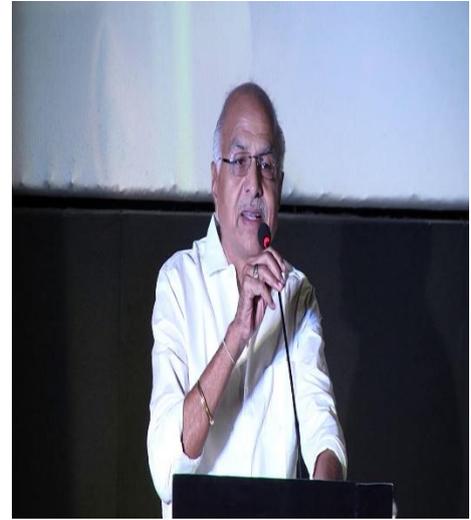
Next, students got a chance to visit SCHWING STETTER, a German-based company, which deals with manufacturing concrete pumps, concrete mixers, mobile and solid concrete mixing plants, concrete transport systems and related accessories.



A total of 56 students visited the above companies, accompanied by the department faculties - Mr. M. Raghuraman, Ms. M. GowthamaKranthi and Mr.M.Vinod and our society's Chennai liaison officer Mr.Arokiadoss. The students would like to express their heartfelt thanks and are indebted to the management of Sri Vishnu Educational Society and the Human Resource (HR) managers of the above companies for giving them an opportunity to visit these companies. Special thanks to Mr.Arokiadoss for his continuous follow-up with the HR managers of these companies and for making this visit happen.

## **LECTURE ON 3D PRINTING**

Department of Mechanical Engineering, Vishnu Institute of Technology, Bhimavaram, on 1st March 2019, organised a guest lecture on "3D Printing". The resource person was Dr. R. Bapaiah Chowdary, who is currently the Professor in Mechanical Engineering Department and Dean (R&D) in Sasi Institute of Technology & Engineering, Tadepalligudem. Dr. R. B Chowdary received his M. Tech from REC- Warangal and Ph.D. from Andhra University in the field of Metallurgy and he had 32 years of teaching experience. The target audience of the lecture were second year B. Tech students and faculty of Department of Mechanical Engineering.



R. B Choudary interacted with the students and elaborated them about the fundamentals of 3D Printing. Types of 3D Printing Technologies and Processes like Stereolithography (SLA), Digital Light Processing (DLP), Material Extrusion, Fused Deposition Modeling (FDM), Powder Bed Fusion and Selective Laser Sintering (SLS) were discussed with their applications of 3D printing in practical situations. The students actively responded to the queries of the resource person and showed interest in learning the latest advancements in 3D printing.

# E-BIKE CHAMPIONSHIP 2K19

Asian Electric Bike (E-Bike) Championship 2019 was organized by Aditya Institute of Technology and Management (AITAM), Tekkali, during 01 - 04 March 2019. In this championship, team AMIGOS 2.0 represented Vishnu Institute of Technology, Bhimavaram and was the Overall Champion of the event and won a cash prize of Rs 60,000/-. It was also the winner in other rounds such as -Endurance (won cash prize of Rs 8,000/-), Autocross (won cash prize of Rs 8,000/-), and runner-up in Terrain event (won cash prize of Rs 5,000/-). Total of 25 teams from 7 states of our country participated in this event and some of the teams are from prominent colleges like-Manipal University, Lovely Professional University, Centurion University, VEL Tech, Velammal Engineering college, SSN Engineering college, Sai Ram Engineering college, JNTU Hyderabad, KITS Warangal, MVGR college of Engineering and among those participants, Vishnu Institute of Technology emerged as overall champions. The management, faculty and students of Department of Mechanical Engineering, VIT heartily congratulate the team for their splendid efforts and for their achievement.



# WORKSHOP ON REFRIGERATION & AIR CONDITION

Department of Mechanical Engineering, Vishnu Institute of Technology, Bhimavaram organized a Three-Day Workshop on "HANDS ON EXPERIENCE IN MAINTENANCE AND TROUBLESHOOTING OF REFRIGERATION AND AIR CONDITIONING SYSTEMS" in association with NATIONAL ENGINEERING, Visakhapatnam from 06th to 08th March 2019. The target audience for the workshop were third year Mechanical Engineering students. The main objective of the workshop is to impart working knowledge in Refrigeration & Air-Conditioning (AC) systems and give hands on training on the repair, maintenance, system diagnostics, troubleshooting and fine-tuning to gain maximum efficiency of Refrigerators and air conditioning equipment. The workshop was very much helpful to the student participants and also provided hands on experience on R&AC systems. They also have Refrigeration & Air-Conditioning (R&AC) as an Elective in the current semester.



## ANNUAL DAY PHOTOSHOOT



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