



Methodist College of Engineering & Technology

Dept. of Mech. Engg.

VISION

To be a reputed centre of excellence in the field of Mechanical Engineering by synergizing innovative technologies and research for the progress of society.

MISSION

- M1:** To impart quality education by means of state-of-the-art infrastructure.
- M2:** To involve in training and activities on leadership qualities and social responsibilities.
- M3:** To inculcate the habit of lifelong learning, practice professional ethics and serve the society.
- M4:** To establish industry- institute interaction for stakeholder development

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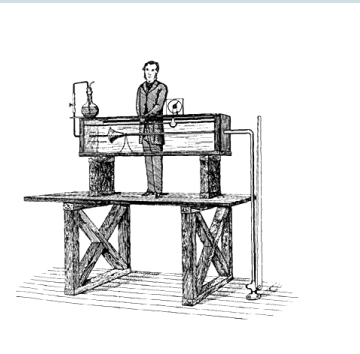
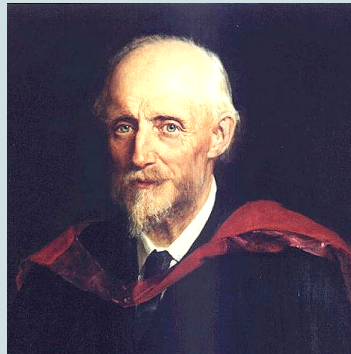
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InFocus: Scientist OSBORNE REYNOLDS



Osborne Reynolds (23 August 1842 – 21 February 1912) was an innovator in the understanding of fluid dynamics. Separately, his studies of heat transfer between solids and fluids brought improvements in boiler and condenser design. He spent his entire career at what is now the University of Manchester. Reynolds most famously studied the conditions in which the flow of fluid in pipes transitioned from laminar flow to turbulent flow. In 1883 Reynolds demonstrated the transition to turbulent flow in a classic experiment in which he examined the behaviour of water flow under different flow rates using a small jet of dyed water introduced into the centre of flow in a larger pipe.

The larger pipe was glass so the behaviour of the layer of dyed flow could be observed, and at the end of this pipe there was a flow control valve used to vary the water velocity inside the tube. When the velocity was low, the dyed layer remained distinct through the entire length of the large tube. When the velocity was increased, the layer broke up at a given point and diffused throughout the fluid's cross-section. The point at which this happened was the transition point from laminar to turbulent flow.

Reynolds published about seventy science and engineering research reports. When towards the end of his career these were republished as a collection they filled three volumes. For a catalogue and short summaries of them. Areas covered besides fluid dynamics included thermodynamics, kinetic theory of gases, condensation of steam, screw-propeller-type ship propulsion, turbine-type ship propulsion, hydraulic brakes, hydrodynamic lubrication, and laboratory apparatus for better measurement of Joule's mechanical equivalent of heat.

STUDENT ACHIEVEMENTS

1. IV year student M Chandrajith won a Gold medal in "Powerlifting" conducted by Osmania University at LB Stadium in Nov-2017.
2. IV year student M Chandrajith won a Gold medal in "Powerlifting" conducted by Hyderabad Dist. Power lifting Association in Nov-2017.
3. IV year student M Chandrajith stood in First place in Weight Lifting competition conducted by 'Telangana Power Lifting Association' in the month of Dec-2017.
4. R. Lokesh Kumar (160716736004), participated in a Workshop conducted by RAM TECH on CATIA Design Course using CATIA V5 R20 at MCET in October 2017
5. S Ajay Kanth (160717736010), won a silver medal in 38th Junior National Rowing Championship held at Odisha on November 2017

EVENTS ORGANISED

S. No	Type & Activity	Date & Duration	Topic	Coordinator	Participants	Resource Person
01	Faculty Development Program	28 th July to 03 rd August 2016	Engg. Graphics with Autocad	Dr. P Ravi Chander	30	Dr K. Saraswathamma Mr. Srikanth Rangdal
02	National Workshop	9-10, Feb'17.	NDT	Md. Fakhruddin H.N.	140	M S Institute of Engineering
03	Seminar	24 th March 2017	Training and job opportunities for Mechanical students	Dr. U S V Prasad	4 th Year Mech (90)	IQRA quality services private limited, Hyd.
04	Mock Interviews	10/03/17	Mech.Engg	Dr. P Shailesh	30	Dr. Buchaiah (Judge)
05	Technical Paper Presentation	10/03/17	Mech.Engg	Mr. Y M M Reddy	10	Dr. Buchaiah (Judge)
06	Technical Quiz	10/03/17	Mech.Engg	Dr. U S V Prasad Mr. K S Raghavan	75	Dr. Buchaiah (Judge)
07	Project Expo	10/03/17	All Branches	Mr Fakhruddin. H.N	12	-
08	CAD contest	10/03/17	Mech.Engg	Mrs.R Prerna	30	-

PAPER PRESENTED

MECH IV students G Sai Krishna Pranay & Mujtaba Ahsanullah presented a paper titled "Design and Fabrication of Tesla Turbine Model" in "International Conference on Emerging Technological Innovations in Mechanical Engineering (ICETIME-2017)"

INTERNATIONAL JOURNALS

Faculty	Paper Title	Journal	Date of Print
M. Prasad	"Design And Analysis Of Gas Turbine Blade"	IJRAET, Vol. No.6, Issue No.2-4	July 2017
	"Flow Analysis Of Positive Displacement Pump Lobe Rotor Using Ansys Workbench"	Ijpres, Vol. No.8, Issue No.5-46	August 2017
	"Two Phase Flow Simulation In Y Joint Duct Used In Pipe Line Applications"	Ijpres, Vol. No.8, Issue No.5-46,	August 2017
Dr. A Rajasekar	"Fracture Analysis to determine strength of Metal –Composite Joints"	ISSN No: 2348-4845, Vol.4 (2017), Issue 6 (June), pp 427 – 433,	June 2017
Dr. P. Shailesh	"Investigation of Tribological Properties of Aluminium-Titanium Diboride (Al/TiB ₂) MMC under Dry Sliding Condition"	International Conference	

WORKSHOP CONDUCTED

A Two Day National Workshop on "Computer Aided Manufacturing" was conducted for the academic year 2017-18 from 20-03-2018 to 21-03-2018 from the Mechanical Department.

FACULTY ACHIEVEMENTS

Dr. A. Rajasekhar Prof. & HOD

AWARDS: Prof. V. M. Radhakrishnan Endowment Best Paper Award in International Symposium for Research Scholars-2008, organized by Department of Metallurgical and Materials Engineering IIT Madras, Chennai - 600 036

Book Publications:

1. Text book titled "Engineering Materials" for Diploma in Mechanical Engineering
2. Co-authored a chapter titled "Microstructure and Mechanical Properties of 16Cr-2Ni Stainless Steel Fusion and Solid State Welds- Influence of Post Weld Treatments", published in "Advanced Materials Research, Vol 794 (2013) as a special book titled "A Century of stainless steels" by Trans Tech publications, Switzerland pp. 289-304

Dr. P Shailesh

Books Published: Metallurgy and Materials Science for B.E. Students

Contributory Book chapters: Objective questions & answers on Mechanical and Chemical Engineering for B.E. students. Metallurgy and Materials Science for B.E. Students

CAD SPACE

CAD or Computer Aided Designing is developing at breakneck speed. You might already be aware that AutoCAD is the most fundamental of the CAD software that is used by almost every engineer. Then there are softwares like Solidworks, CATIA, Creo Pro, Unigraphics, Solidedge, Inventor & many more that have much more advanced features packed into them. Here let's look at Onshape.com.

Onshape

Onshape is the only product development platform that unites CAD, data management, collaboration tools and real-time analytics.

- Parts, Assemblies, Drawings
- Configurations
- Standard content libraries
- Managed in-context design
- Simultaneous sheet metal tools
- Import / Export industry file formats
- Intelligent custom features

It is one of the CAD softwares which is provided as SAS which means "software as a service". One needs to pay a fixed charge on a monthly or yearly basis to get access to the software.

Entire data is stored & managed by the Onshape Inc. so there are no problems with newer file versions not opening in older software or multiple copies of files with different edits. Problem of merging the ideas of more than one designer working on files independently etc... When the software is updated, the same becomes available to everyone as soon as it is updated. No need to wait till it's downloaded & installed and no need to check if the system supports it. It all happens without the user even realising it. And that consistently happens once in three weeks!

The company is also providing state of the art training videos online many of which are freely accessible. Students can watch & learn from the videos & use relevant CAD files provided to copy & practice from the lessons. There is no time limit on how fast or slow the lessons are completed. Once all the lessons are completed & their following quizzes answered correctly, a certificate will be available for download. Everything without the student paying a single rupee!

Keeping these features in mind, our department has decided to start developing models related to subjects in Onshape. The plan is to distribute these to the students so that they can interact with the models on their mobiles or desktops. Now that would be so much better than wondering how the printed lines in text books would move.

Interested students may contact the Club in charge for participation in these activities. This is a golden opportunity for you all to leave behind a legacy for your juniors to ponder over.

