

WORLD OF DESIGN AND ANALYSIS SOFTWARES

A designer uses various software like **Catia, PTC-Creo, Autocad, Solid works, Rhinoceros 3D** etc. These software are used to manipulate points within the virtual space. This helps them to form a mesh, which is a group of vertices that create an object. To master all the above written software it **usually takes 1 year duration**. In these some 3D software system can create 2D images called 3D rendering and some can even do the real time rendering but for better realistic scenes and with the complex lighting combination some software are present like **Modo, Blender, Fusion 360, OpenSCAD**.



ANAL TIWARI
8th Sem. Mechanical

For testing and simulations, software like Ansys is used. Here simulations computer models of structures, electronics, or machine components to simulate strength, toughness, elasticity, temperature distribution, electromagnetism, fluid flow, and other attributes are done. Ansys is used to determine how a product will function with different specifications, without building test products or conducting crash tests. For example, Ansys software may simulate how a bridge will hold up after years of traffic. **Time takes to learn the software fully with all the attributes takes around 2 to 4 (max) month.**

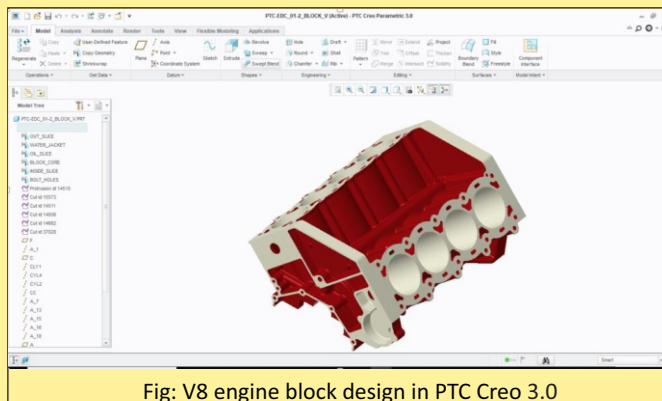


Fig: V8 engine block design in PTC Creo 3.0

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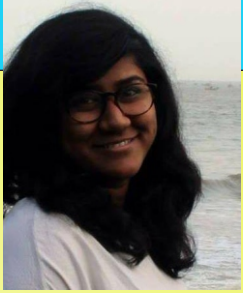
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**“THE WALL BETWEEN ART
AND ENGINEERING
EXIST ONLY IN OUR
MINDS.”**

THEO JANSEN

ALUMNI SECTION

COLLEGE TO CORPERATE



SRIJA BISWAS

Batch 2011-15
 Software developer | Tech Mahindra
 Content Writer | Techment Technology
 Operations Manager | iLrnn
 Juinior Engineer | Anglo Eastern Ship Managemnet

Years of studying mathematics and physics has convinced my mind that there is only one right answer to every question. Colleges are a place of higher education, and a medium of transition from theorems & postulates to more of a real-life situation. It opens the very first window to the next life of ours to this real world. Over my years as an engineering student, I learned that learning not only consist of what it is in the books but my skill sets too.

My corporate life proved how much value our skill set holds. As the first question asked in any interview room is to define yourself and your skill set. And I have found college to be one place where I got to understand what my real skill sets are and develop them over time. From gaining the knowledge required to developing the skill sets, the major role played were my teachers, who helped flourish in both the steps of my path to the real outside world. Corporate made me experience the teachings I gathered in college.

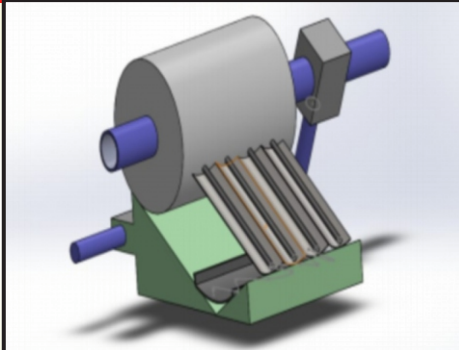
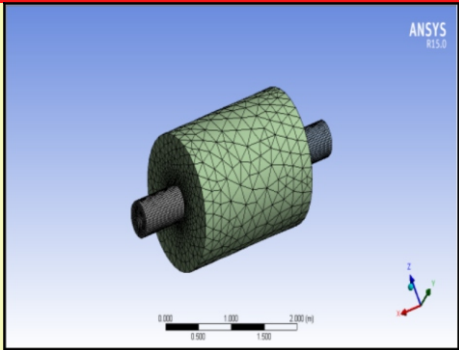
Finally, I would say, College and Corporate are not two different worlds but rather are connected. One is Theory while the other is Practical.

MODIFIED SOLAR EVACUATED TUBE COLLECTOR



RAMAKANT

8th Sem. Mechanical



REVTIRAMAN SAHU

8th Sem. Mechanical

The modified solar Evacuated Tube collector has been proved as a useful system for water heating however suffers from practical problem like icing, overheating and loss of available solar energy. Present work proposed a modified Evacuated Tube Collector with resistance heater, thermal sensor and compound parabolic concentrator to solve the mentioned problem solid works model of the proposed system has been presented to explain the construction details of the system. With the performance analysis system behavior can be explained under different design and operating conditions. These variable may be solar intensity, water mass flow rate, angle of inclination, location of collector,

INDIAN RAILWAYS ON ITS TRACK TO DEVELOPMENT: AN ERA OF INNOVATIONS

It would be correct if I say that the "NEW ERA OF IR has Began".So bringing in front of you the latest updates in IR.



PRATEEK SHARMA

6th Sem. Mechanical

1. Talgo : Our Bullet Train dream getting True: The Indian Railways introduced Spanish Talgo, a light train comsuming 30 per cent less energy.The train consists of two Executive Class cars, four Chair Cars, a cafeteria, a power car and a tail-end coach for staff and equipment .Spain helped us in this.

2.IR Creates history by converting Diesel Loco to Electric: Diesel Locomotive Works (DLW), has for the first time converted a locomotive from diesel to electric traction. Under ageis of 'Make in India', Two diesel locomotives are converted to one "permanently coupled 12-axle, electric locomotive"of 10,000 HP. We also got **WDG5(Bheem,Strongest Diesel loco of IR) and WDG4GE as our muscular Freight high power Diesel Locos.**



WDG5

Deen Dayalu Coaches -First modern unreserved coach with facilities like potable drinking water, cushioned luggage racks, additional hand hold in doorway area and coat hooks, mobile charging points and bio-toilets among others to be used in mail and express trains.



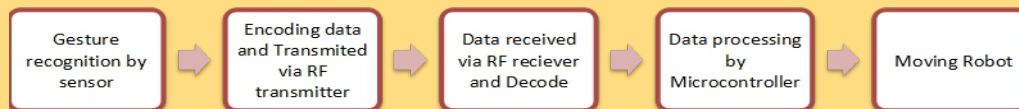
EMERGING TRENDS IN MECHANICAL ENGINEERING MULTIDISCIPLINARY STUDIES

HAND GESTURE CONTROLLED ROBOT

A hand Gesture Control Robot is a kind of robot which is controlled by the hand gestures and not by using buttons. The robot is equipped with two sections- Transmitting section and Receiving section. In the Transmitting section, the Accelerometer is mounted on hand of the user capturing its gesture and moving the robot accordingly. All the collected data is encoded by encoder IC and transmitted by an RF Transmitter. In the receiving section, the received data is Decoded then processed by a microcontroller and passed onto a motor driver to rotate the motors in a special configuration to move the robot in the same direction as that of the hand. It can be used by physically challenged people to navigate their wheelchair, military purposes like Unmanned ground vehicles (UGVs) etc.



DHEERAJ VERMA
6th Sem. Mechanical



FUTURE OF AUTOMOBILES ENGINEERING

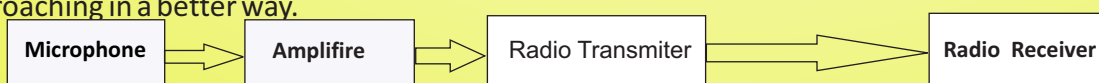


SAGAR SAHU
4th Sem. Mechanical

The automobile industry started with steam power headed to internal combustion then multiple cylinder engine with different types of fuel, then there came a new segment called hybrid cars. Now the Government of INDIA plans to make a major shift to electric vehicles by 2030, incorporating this they unveiled 'National Electric Mobility Mission Plan (NEMMP) 2020' in 2013. Since then car manufacturers and e-commerce companies in INDIA have been working together to give a new birth to the automobile industry in INDIA. As a Mechanical Engineer we also need to contribute in fabricating this new future. Apart from the knowledge of IC-Engine and thermodynamics we also need to integrate electronics to our learning. If you really want to be a part of automobile industry, the scope is very high if we have proper knowledge of mechanics and electronics. The future has been predicted, now it's our choice to choose a new way or to go with the flow.

SMART PUBLIC ADDRESSING SYSTEM

There is a new smart public addressing system in which there is connection of radio transmitter with the old public addressing system in the railways. As now announcement in loudspeakers are followed by the amplifier. In this a connection of radio transmitter with the amplifier along with loudspeakers is present. This radio transmitter now transmits the same announcement as given to the loudspeaker. This transmitter now addresses the people by the radio app available in their mobile phone. This is very much useful in case of faulty working of loudspeaker and inaudibility due to heavy crowd in railway stations. Nowadays railway is using loudspeakers for public addressing sometimes due to technical faults and more crowd in railway platform, the announcement can not be heard at a time. And so public can't get right information about the trains. So by adding this feature to public addressing system will help us in approaching in a better way.



ANUJ KUMAR SINGH
YASHRAJ SAHU
PARASMANI SAHU
4th Sem. Mechanical

Events Organized by Mechanical Engineering Department



BATCH 2015-19
FAREWELL

ROBOSOCCER



ROBO DANGAL

GATE QUALIFIERS OF 2019

NAME	MARKS	AIR
Moinuddin Ansari	69.26	1819
Nishith Dewangan	46.25	12944
Anubhav Jain	50	10958
Ashish Pandey	50.25	10654
Ramakant Nirmalkar	36	-

PLACEMENTS

COMPANY	Package (Lacs/annum)	No. of Students
TCS	3.36	01
Just Dial	2.16	09
Pinclick	2.4	12
Collabera	2.4	01
Ashok Leyland	-	02
SGS, Technical Service Private Ltd.	2.54	06
eTeam Info Service Private Ltd.	3.59	01
Wipro	3.5	01
Nucleus Software	3.64	02
Appeal Qualiserve	3.7	03
I-CanNano	1.8	01
Asahi India Glass Ltd.	3	01
Neco, Raipur	1.8	04
Byju's	3	01
Sun Vaccum	2	02
Cognizant	3.38	01

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