

# CENTRE FOR ENGINEERING DESIGN

**CENTRE FOR ENGINEERING DESIGN (CED)** is aimed at undertaking fundamental and applied research to generate knowledge that improves the design process. Our work is driven both by intellectual curiosity and industrial collaboration, resulting in understanding, methods and tools that shape design theory and design practice. The CED engages in knowledge transfer activities through publications, education, training and ongoing engagements with government and other public institutions. More generally, promoting the value of engineering design, the value of design education and design research.

## Benefits for student learning in using the Engineering Design Process

CED, teaches collaboration and promotes critical thinking skills.

- Learn to work together by creating and designing a plan (first individually then in a group);
- Describe and justify a plan, learn to share and present their thoughts, justify answers, debate/defend/explain their thinking;
- Solve problems by finding answers to questions;
- Collect data, analyze data, make modifications and adaptations;
- Justify why they make changes, state opinion, remedy solution;
- Become self-learners;
- Learn through trial and error and from mistakes; and
- Learn to revise ideas, making and testing predictions.

### Thrust Areas

- E AutoCAD
- Inventor
- Fusion 360
- PTC Creo
- CATIA
- NX
- SolidWorks
- ANSYS

### Application Domains

- Product Development
- Manufacturing
- Automobile
- Aerospace
- FEA
- Materials Engineering
- Rapid Prototyping

- ABAQUS
- MATLAB
- COSMOSWORKS (Simulation in SolidWorks)

## Projects 2020-21

Title of the Project	Roll No.	Name of the Student
Analysis on performance of radiant heat exchanger of thermic fluid heater by changing the suitable grade of material	17N31A0323	CHAVAN NAVEEN KUMAR
	17N31A0335	DHANAVATH GOWTHAM
	17N31A0350	GUGULOTH SUMAN
Design and analysis of F1 chassis	17N31A0309	ANNAM AKSHAYA
	17N31A0328	S AISHWARYA
	17N31A0353	J SANTOSH KUMAR
Design and fabrication of Automatic 4-wheel steering system using gear mechanism	17N31A0303	A CHARAN VEERA KUMAR
	17N31A0310	ANNAREDDY TEJESWARA REDDY
	17N31A0344	GANTALA SUNIL BABU
Design and analysis of shredder machine for e- waste recycling	18N35A0302	BANAVATH GANESH
	18N35A0304	BUDATHA MANISH
	18N35A0310	DASARI VENKATESH
Design and fluid structural analysis of centrifugal fan	17N31A0321	BIRRESETTI DHARMA SAISATISH
	17N31A0333	DAGDE MAHIPAL
	17N31A0334	DAREDDY SAIDA REDDY
Modeling and 3D printing of differential gear box	17N31A0381	K N S DATTABHISHEK
	17N31A0382	KOUKUNTLA VENKAT NARAYANA
	17N31A0383	KUNGULWAR VENKATESH
Customization of 4WD suspension using pneumatic cylinders	17N31A0386	LUNAVATH DEVENDER
	17N31A0389	M DINESH NAYAK
	17N31A0395	MALLAPU BHAVANI PRASAD

Analysis of stresses in helical gears by FEM	17N31A0369	KODUR PURUSHOTHAM REDDY
	17N31A0373	KOMMIREDDY UDAY KUMAR REDDY
	17N31A0384	KYADARI RAKESH
Fly wheel mechanical regenerative braking system	17N31A03B2	MOHAMMED ABDUL MOIZ BAIG
	17N31A03B4	MOHAMMED IBRAHIM
	17N31A03B7	MOHAMMED SAMEE
Fabrication of electromagnetic system using magnetic power	17N31A03A7	MD NEHAL KHAN
	17N31A03A8	MD SHAHEEMUDDIN
	18N35A0321	MASI AHMED ADIL
Design and analysis of leaf spring by using composite materials	17N31A03C6	NAMALA KRANTHI KUMAR
	17N31A03G5	SIRIVELLA IRFAN
	17N31A03J0	YEDDULA VENKATA VASANTH KUMAR REDDY
Design of fabrication of automatic railway platform extension	17N31A03G9	SURYAPET PRANAY
	18N35A0326	PESARU RAMKUMAR
	18N35A0334	VADUGU VIJAY
Design and analysis of heavy vehicle chassis	17N31A03C3	NAGOJU SAI TARUN CHARY
	17N31A03E8	R V ANUSHA
	17N31A03H7	VELDANDI SOUMITH
Design and analysis of rear axle shaft	17N31A03D5	PALEM ABHISHEK REDDY
	16N31A03C2	RAYANARAJENDRAKUMAR
	16N31A03C3	RAYAPROLU VENKATAPHANI SITARAMA SAIKRISHNA
Design and analysis of suspension system used in 3-wheeler	17N31A03E5	PG SNEHA
	17N31A03G2	SAJJANSHETTY VENKATESH
	17N31A03G6	SOMMANAGARI TEJASWI
Design and analysis for developing	17N31A03C1	NAGAVELLI MANIDEEP SAI

an efficient cone clutch	17N31A03E9	RAGAM SAKETH RAO
	17N31A03F2	RAMISETTY RUTHVIK SRIHARSHA
Design and experimental studier on crank	17N31A03H2	VINAY KUMAR
	18N35A0325	NEELAM ANUDEEP
	18N35A0331	SANA PRAVEEN KUMAR
Design and fabrication of water pump using scotch yoke mechanism	17N31A03D6	PALIVELA SHYAM SATYA VARA PRASAD
	17N31A03E7	PRINCE KUMAR SINGH
	17N31A03J1	PRASHANT LAMICHHANE
Design and analysis of crank shaft using smart material	17N31A03D1	P SAI KUMAR REDDY
	17N31A03E2	PATUKARI SAI KIRAN
	17N31A03E3	PECHETTI SAI VAMSI