



CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT, ODISHA

FDP

on

"SIMULIA"

Date: From 17/06/2021 to 30/06/2021

No. of Faculty Participated: 16

Co-ordinator Details: Mukundjee Pandey

Objective:

- To understand the basics of finite element analysis and its applications in engineering.
- To impart knowledge about various computational methods for fluid flow and heat transfer problems so as to enable the participants to use computer codes for solving elementary fluid dynamics/heat transfer problems.

Resource Person Details:

Dr. Mukundjee Pandey completed his *B. Tech in Mechanical Engineering from Sikkim Manipal Institute of Technology Majitar East-Sikkim* in 2011. He obtained his *M. Tech in Thermal Science and Heat Power engineering specialization from Institute of Technical Education and Research, Siksha 'O' Anusandhan University, Bhubaneswar* in 2015.

Currently, He has completed his *PhD from International Institute of Information Technology, Bhubaneswar in 2022.*

He joined *Centurion University of Technology and Management, Odisha, India on 1st November 2016* as Assistant Professor in Mechanical Engineering Department.

He is motivated to involve himself in renewable energy research. His research field includes Computational Fluid Dynamics, Finite Element Analysis, Solar Thermal System, Solar Parabolic Trough Collectors, Solar Chimney, Thermodynamic Power Cycles, Kalina Cycle, Organic Rankine Cycle and Brayton Cycle.

He is having experience in handling projects using Ansys, Simulia, Altair, SimScale, Star ccm+, X-Flow, DwSim, ChemCad, and Aspen Plus softwares.

He contributed more than 90 research articles which include SCI, Scopus, WoS and the journal UGC care journals. He is the reviewer of the journal "**Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy**" [*SAGE (SCI, SCOPUS)*] since 2020 and the journal "**International journal of renewable energy and research**" [*IJRER (ESCI, SCOPUS)*] since 2017 respectively

Detailed report of the activity:

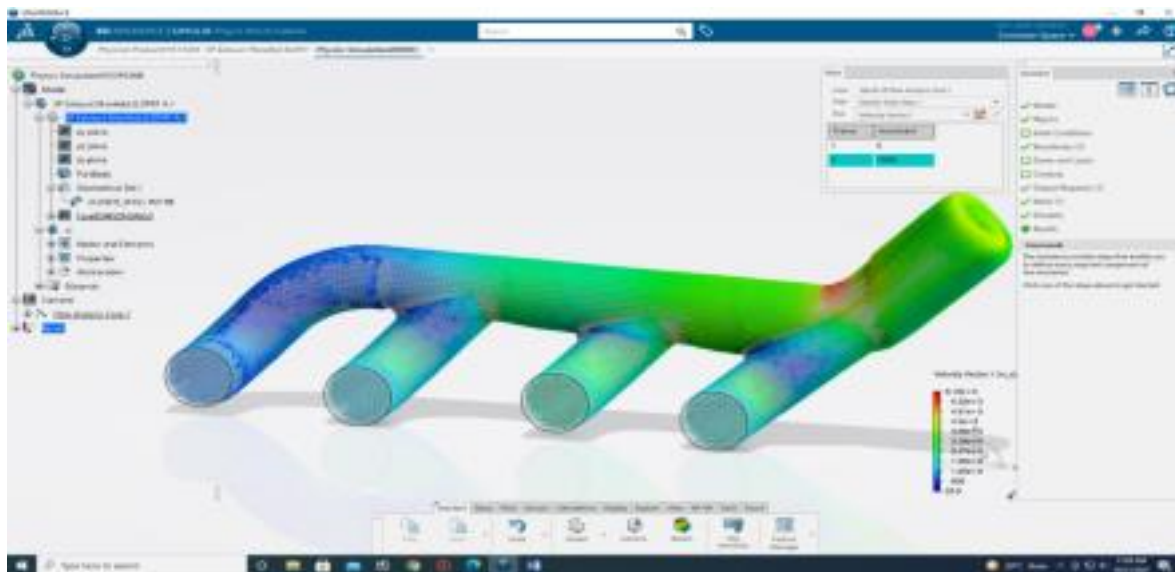
Individuals at this training may understand the client’s business requirements and translate them into technology requirements for the technology consultants. They act as facilitators in the process of solutioning and development of the end product/service.

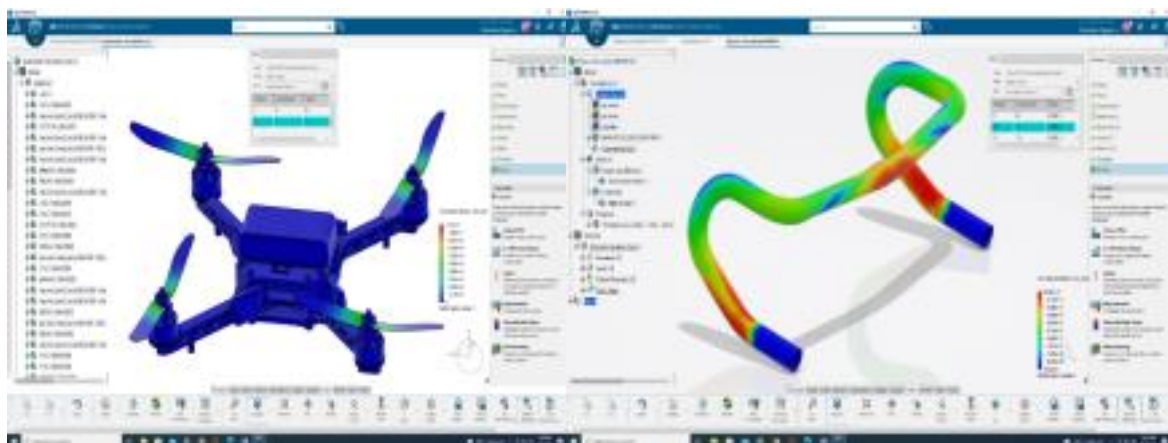
Outcome:

It could be utilized to solve real life problems related to structural, thermal and fluid dynamics and their validation with experimental and analytical results.

1	17-Jun-21	Why default mesh is hexahedral in Simulia, what is orthogonality and skewness in mesh?	Mukundjee Pandey
2	18-Jun-21	What is grid independence test and why is necessary?	Mukundjee Pandey
3	19-Jun-21	How to validation of CFD results and why it is important.	Mukundjee Pandey
4	20-Jun-21	Basics to start an external flow simulation like that of a wind tunnel.	Mukundjee Pandey
5	21-Jun-21	Why and how to give boundary conditions for wind tunnel simulation.	Mukundjee Pandey
6	22-Jun-21	Saturday	
7	23-Jun-21	Sunday	
8	24-Jun-21	How to generate pressure, velocity, velocity vectors and temperature contours of flow distribution	Mukundjee Pandey
9	25-Jun-21	What a SCI research paper demands for simulation.	Mukundjee Pandey
10	26-Jun-21	Practice Sessions on problem solving	Mukundjee Pandey
11	27-Jun-21	Practice Sessions on problem solving	Mukundjee Pandey
12	28-Jun-21	Practice Sessions on problem solving	Mukundjee Pandey
13	29-Jun-21	Practice Sessions on problem solving	Mukundjee Pandey
14	30-Jun-21	Practice Sessions on problem solving	Mukundjee Pandey

Screenshot during the session of SIMULIA





List of Students/Faculty Attendance:

SL. NO.	Name Profession
1	R.C. Mohanty Professor
2	V.Khageswar Assistant Professor
3	Dr.Ashok Mishra Professor
4	Sujit Mishra Assistant Professor
5	Dr. Karthik Babu NB Assistant Professor
6	Manas Ranjan Padhi Assistant Professor
7	Madhava Rao K Assistant Professor
8	Dr. A M Mohanty Professor
9	Dr. Goutam Kumar Mahato Associate Professor
10	Dr. Naryan Gouda Associate Professor
11	Debashree Debadatta Behera Assistant Professor
12	Dr. Gangadhar Purohit Assistant Professor
13	G. Sridevi Assistant Professor
14	Dr Tumbanath Samantara Associate Professor

15	Himansu Bhusan Samal Assistant Professor
16	Umakanta Biswal Lab Assistant

Brochure related to the event:



Dr. Prasanta Ku. Mohanty
Dean Academic

Prof. KVD Prakash
Dean - IIE & HRD