

Report on VTU Visualizing Engineering COE Train the Trainers Program

Conducted by VTU in Association ALTEM Technologies

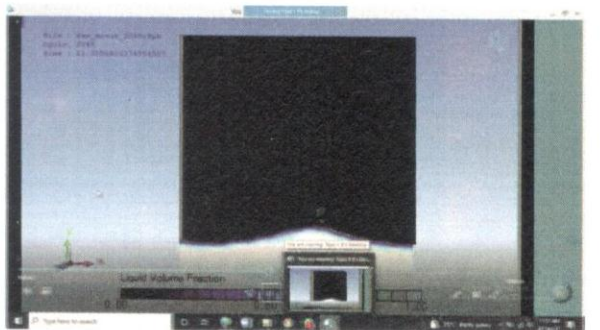
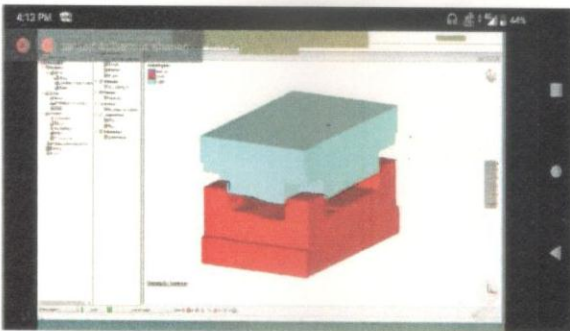
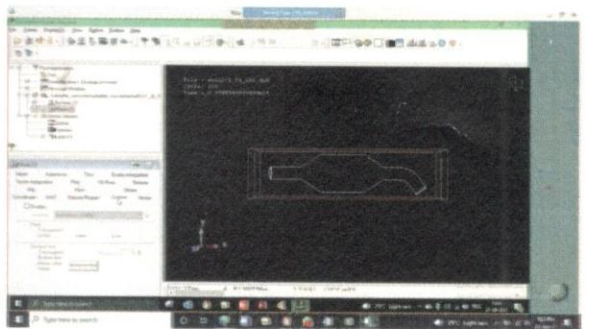
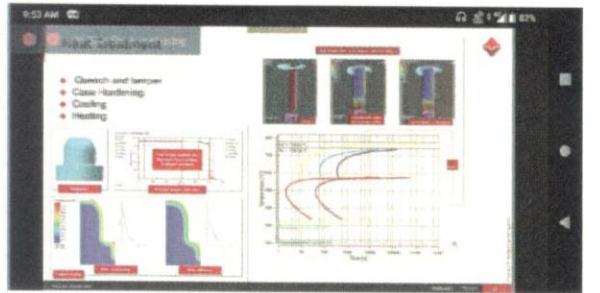
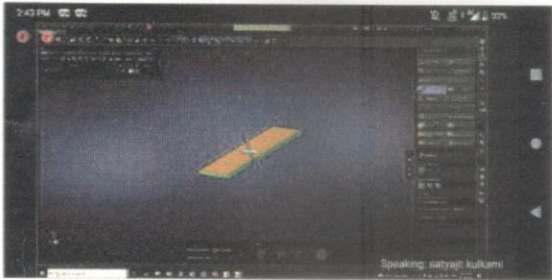
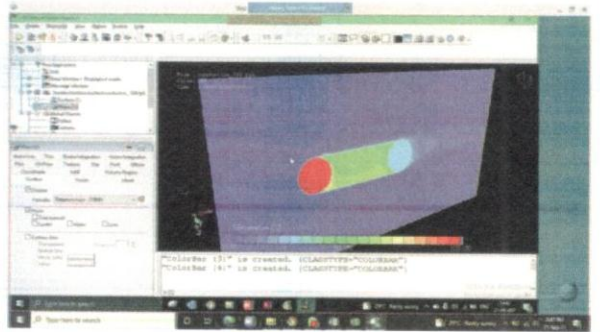
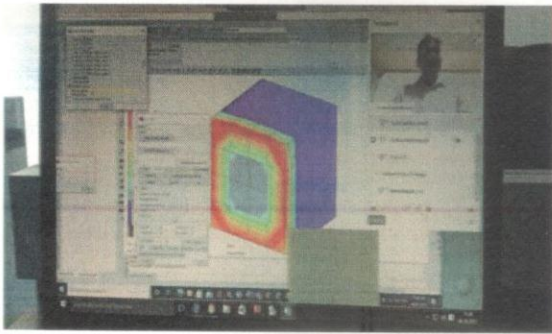
Date: 02/08/2021 to 04/10/2021

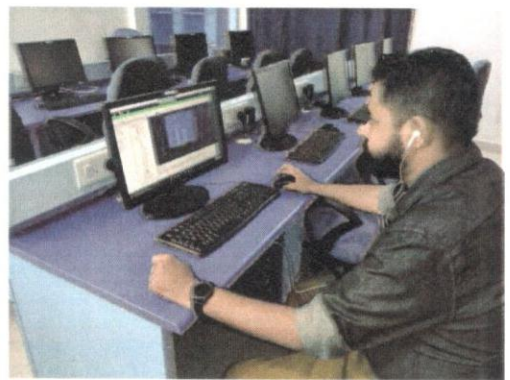
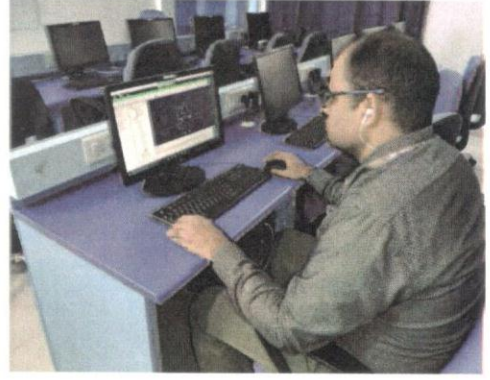
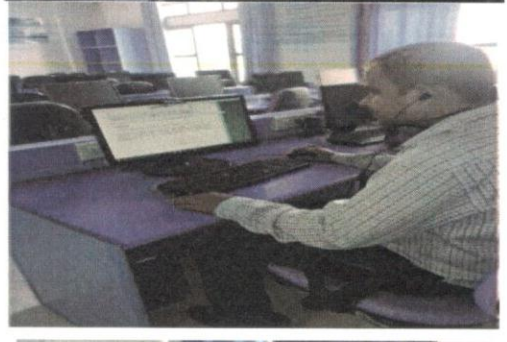
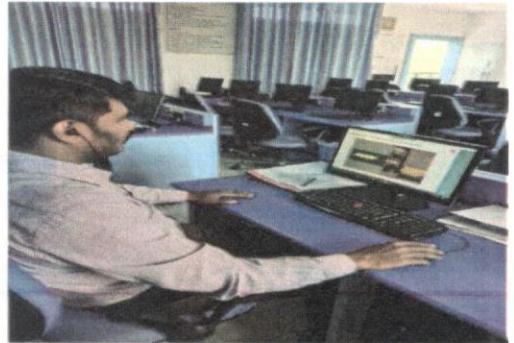
Visvesvaraya Technological University Implemented Centre of Excellence in Visualization Engineering in association with ALTEM Technologies and MSC Software with all its constituent colleges. The main aim of this program was to overcome the challenges faced by the industry regarding the skills available with the new Mechanical Engineering (and allied branches of engineering) recruits, help Students to understand the theoretical concepts better by letting them visualize the scenarios using Simulation tools, Train the students in using the modern simulation tools to make them industry ready by providing opportunity to do real life projects.

Under the Visualizing Engineering initiative, the topics included was mapped the syllabus covering all mechanical engineering topics from 3rd Semester to 8th Semester of Mechanical Engineering and allied branches. This included deep coverage of Composites, Forging, Rolling, Welding, and new Manufacturing Techniques like Metal Additive Manufacturing and Plastic 3DPrinting Simulations, Fracture, Fatigue, Kinetics and Dynamics of Machines and Mechanisms, Robotics, Fluid Dynamics, Rotor Dynamics, Control Systems Simulation etc.

Software Training was provided by online means to the Faculties and students by the trainers of ALTEM Technologies. Free access to the software for any number of hours was provided. The feedback regarding the usability of the software was also collected on a daily basis. 40 Hours of online training from 02nd August 2021 to 04th October 2021 at scheduled timings was provided by e-learning subscription available to the faculties. All mapped subjects covered during the Train-the-Trainers program included Linear Static FEA Analysis, Dynamic FEA Analysis, Non-Linear FEA Analysis, Fatigue of structures, Material Modelling, Multi-Body Dynamics, Control Systems, Computational Fluid Dynamics, Thermal Analysis, Manufacturing Simulation etc. by various Industry Experience Experts. The glimpses of the train the trainer program and the schedule have been included with this report.

Glimpses of Train the Trainers Program on VTU Visualizing Engineering





Training Agenda for Train-the-Trainers Program of VTU - Visualizing Engineering COE : Page 1

Day / Date	Date	Time	Topic	Software	Trainer
Day 1	02-Aug-21	10.00 AM to 10:30 AM	Inauguration of VTU – Visualizing Engineering by Hon arable Vice-Chancellor, VTU, Belagavi		
Day 1	02-Aug-21	9.00 AM to 10:00 AM	Introduction to Visualizing Engineering Program	Presentation	MSC - Karthik Sunarraraj
Day 1	02-Aug-21	10:30 AM to 6.30 PM	Introduction to CAMA and FEM. Basic Workshop initiation	Nastran / Patran	MSC - Shripathi V
Day 2	03-Aug-21	9.00 AM to 6.00 PM	Computer Aided Modeling and Analysis Workshop	Nastran / Patran	Altem - Suraj & Team
Day 3	04-Aug-21	9.00 AM to 6.00 PM	Computer Aided Modeling and Analysis Workshop	Nastran / Patran	Altem - Suraj & Team
Day 4	05-Aug-21	9.00 AM to 6.00 PM	Finite Element Methods Workshop	Nastran / Patran	Altem - Suraj & Team
Day 5	06-Aug-21	9.00 AM to 6.00 PM	Finite Element Methods Workshop	Nastran / Patran	Altem - Suraj & Team
Day 6	09-Aug-21	9.00 AM to 6.00 PM	Mechanical Vibrations and Workshop	Nastran / Patran	MSC - Shripathi / Altem - Suraj & Team
Day 7	10-Aug-21	9.00 AM to 6.00 PM	Mechanical Vibrations Workshop	Nastran / Patran	Altem - Suraj & Team
Day 8	11-Aug-21	9.00 AM to 6.00 PM	Introduction to Adams, Basics of Multi Body Dynamics and Workshop	Adams	MSC - Karthik B
Day 9	12-Aug-21	9.00 AM to 6.00 PM	Kinematics of Machines Workshop	Adams	Altem - Suraj & Team
Day 10	13-Aug-21	9.00 AM to 6.00 PM	Kinematics of Machines Workshop	Adams	Altem - Suraj & Team
Day 11	16-Aug-21	9.00 AM to 6.00 PM	Dynamics of Machines and Workshop	Adams	MSC - Karthik B / Altem
Day 12	17-Aug-21	9.00 AM to 6.00 PM	Dynamics of Machines Workshop	Adams	Altem - Suraj & Team
Day 13	18-Aug-21	9.00 AM to 6.00 PM	Automotive Engineering Introduction and Workshop	Adams	MSC - Karthik B / Altem
Day 14	19-Aug-21	9.00 AM to 6.00 PM	Automotive Engineering Workshop	Adams	Altem - Suraj & Team
	20-Aug-21		Holiday		
Day 15	23-Aug-21	9.00 AM to 6.00 PM	Introduction to Apex, Mechanics of Materials	Apex	Pramod Deshpande
Day 16	24-Aug-21	9.00 AM to 6.00 PM	Mechanics of Materials Workshop	Apex	Altem - Suraj & Team
Day 17	25-Aug-21	9.00 AM to 6.00 PM	Mechanics of Materials Workshop	Apex	Altem - Suraj & Team
Day 18	26-Aug-21	9.00 AM to 6.00 PM	Basics of MSC Fatigue	MSC Fatigue	Nitish Wani / Ananda
Day 19	27-Aug-21	9.00 AM to 6.00 PM	Design of Machine Elements - I, Material Science Workshop	MSC Fatigue	Altem - Suraj & Team
	30-Aug-21		Holiday		
Day 20	31-Aug-21	9.00 AM to 6.00 PM	Design of Machine Elements - I, Material Science Workshop	MSC Fatigue	Altem - Suraj & Team

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Training Agenda for Train-the-Trainers Program of VTU - Visualizing Engineering COE : Page 2

Day / Date	Date	Time	Topic	Software	Trainer
Day 21	03-Sep-21	9.00 AM to 6.00 PM	Introduction to Marc and Non-Linear Simulation. Basic Workshop	Marc	Narayanan Ramanujam
Day 22	06-Sep-21	9.00 AM to 6.00 PM	Design of Machine Elements. Workshop Introduction	Marc	Narayanan Ramanujam / Altem - Krishna Kant
Day 23	07-Sep-21	9.00 AM to 6.00 PM	Non-Linear Simulation Workshop	Marc	Altem - Krishna Kant & Team
Day 24	08-Sep-21	9.00 AM to 6.00 PM	Design of Machine Elements - I & II - Workshop	Marc	Altem - Krishna Kant & Team
	09-Sep-21		Holiday		
	10-Sep-21		Holiday		
Day 25	13-Sep-21	9.00 AM to 6.00 PM	Theory of Elasticity and Theory of Plasticity Workshops	Marc	Altem - Krishna Kant & Team
Day 26	14-Sep-21	9.00 AM to 6.00 PM	Introduction to Computational Fluid Dynamics and Workshop	ScFlow	MSC - Karthik S / Ganesh Pawar / Altem
Day 27	15-Sep-21	9.00 AM to 6.00 PM	Fluid Mechanics, Fluid Mechanics and Machines Lab and Workshop	ScFlow	MSC - Karthik S / Ganesh Pawar / Altem
Day 28	16-Sep-21	9.00 AM to 6.00 PM	Turbo Machines, Heat and Mass Transfer, Gas Dynamics and Workshop	ScFlow	MSC - Karthik S / Ganesh Pawar / Altem
Day 29	17-Sep-21	9.00 AM to 6.00 PM	CFD ScFlow Workshops	ScFlow	Altem - Tejas & Team
Day 30	20-Sep-21	9.00 AM to 6.00 PM	CFD ScFlow Workshops	ScFlow	Altem - Tejas & Team
Day 31	21-Sep-21	9.00 AM to 6.00 PM	CFD ScFlow Workshops	ScFlow	Altem - Tejas & Team
Day 32	22-Sep-21	9.00 AM to 6.00 PM	CFD ScFlow Workshops	ScFlow	Altem - Tejas & Team
Day 33	23-Sep-21	9.00 AM to 6.00 PM	Introduction to Sinda, Heat and Mass Transfer Workshops	Sinda	MSC - Shripathi
Day 34	24-Sep-21	9.00 AM to 6.00 PM	Introduction to Easy5, Control Engineering Workshops	Easy 5	MSC - Shripathi
Day 35	27-Sep-21	9.00 AM to 6.00 PM	Introduction to Digimat, Material Modelling and Workshop	Digimat	MSC - Harish Lambadi
Day 36	28-Sep-21	9.00 AM to 6.00 PM	Workshops on Composite Materials and Manufacturing	Digimat	Altem - Krishna Kant & Team
Day 37	29-Sep-21	9.00 AM to 6.00 PM	Introduction to Digimat AM, Additive Mfg with Composites Workshop	Digimat	MSC - Harish Lambadi / Altem - Krishna Kant
Day 38	30-Sep-21	9.00 AM to 6.00 PM	Introduction to Simufact Forming and Workshops	Simufact	MSC - LN Siva Sai / Altem & Team
Day 39	01-Oct-21	9.00 AM to 6.00 PM	Introduction to Simufact Welding and Workshops	Simufact	MSC - Sandip Mannurkar / Altem & Team
Day 40	04-Oct-21	9.00 AM to 6.00 PM	Additive Manufacturing with Metals and Workshops	Simufact	MSC - Santhosh Nagaraju / Altem & Team

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