

Research Presentation Day 2022 (Peers)

18 <sup>th</sup> Aug: Afternoon Session (D1A ↓)				
Timings	Presenters	Faculty Chair	Student Chair	Page No
<b>14:00 – 14:10</b> <b>INAUGURATION.</b>				
14:15 – 14:40	<b>Amrutha B</b> UTSAAH Lab Analysis of Fetal Heart Sound for Fetal Health Monitoring	<b>Prof. Amaresh Chakrabarti</b>	<b>Sanketh R</b>	17
14:40 – 15:05	<b>Manish Kumar</b> SuDesi Lab Towards an interdisciplinary framework for effective sustainability assessment in manufacturing	<b>Prof. Amaresh Chakrabarti</b>	<b>Sanketh R</b>	5
15:05 – 15:30	<b>Aparna Harindranath</b> UTSAAH Lab Swept-Fan 2D Ultrasound Imaging using MEMS-IMU-Based Orientation Tracking	<b>Prof. Amaresh Chakrabarti</b>	<b>Sanketh R</b>	14
15:30 – 15:55	<b>Anitha Francis</b> SCALE Lab Objective Decomposition of Activities of Daily Living (ADLs)	<b>Prof. Amaresh Chakrabarti</b>	<b>Sanketh R</b>	11
<b>15:55 – 16:10</b> <b>BREAK</b>				
16:10 – 16:35	<b>Ishaan Kaushal</b> IDEaS Lab Manufacturing System Modeling for Sustainability Assessment	<b>Dr Abhijit Biswas</b>	<b>Manish Kumar</b>	8
16:35 – 17:00	<b>Tarun Kumar</b> SuDesi Lab Assessing the impact of building orientation on Energy Neutrality for a smart multistorey office building at Bangalore	<b>Dr Abhijit Biswas</b>	<b>Manish Kumar</b>	2
17:00 – 17:25	<b>Mayank Badola</b> SCALE Lab Simulation of an unexpected event in DHM environment	<b>Dr Abhijit Biswas</b>	<b>Manish Kumar</b>	32
17:25 – 17:50	<b>Priyanka</b> SCALE Lab Identifying the Requirements for Natural Behaviors of a Digital Human Hand	<b>Dr Abhijit Biswas</b>	<b>Manish Kumar</b>	35

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<b>19<sup>th</sup> Aug: Forenoon Session (D2FN)</b>				
<b>Timings</b>	<b>Presenters</b>	<b>Faculty Chair</b>	<b>Student Chair</b>	<b>Page No</b>
<b>9:30 – 9:55</b>	<b>Apoorv Bhatt</b> IDeaS Lab Gamification of Design Thinking: A Way to Enhance Effectiveness of Learning	<b>Dr Pradipta Biswas</b>	<b>Amrutha B</b>	20
<b>9:55 – 10:20</b>	<b>Gutta Bindu</b> SCALE Lab High-temperature Microstructure and Mechanical properties of In-situ Polymer Derived Ceramic Composite	<b>Dr Pradipta Biswas</b>	<b>Amrutha B</b>	23
<b>10:20 – 10:45</b>	<b>Kiran George Varghese</b> PLM Lab Data-Driven Tool Wear Prediction in Turning Process	<b>Dr Pradipta Biswas</b>	<b>Amrutha B</b>	26
<b>10:45 – 11:10</b>	<b>M Naveen Kumar</b> PLM Lab Design of Porous Structures	<b>Dr Pradipta Biswas</b>	<b>Amrutha B</b>	29
		<b>11:10 – 11:25 BREAK</b>		
<b>11:25 – 11:50</b>	<b>Vivek Khatua</b> M2D2 Lab Development of a 3D printer for specifically patterned and spatially arranged, long and short fiber tracks in polymer matrix	<b>Dr Pradipta Biswas</b>	<b>Apoorv Bhatt</b>	98
<b>11:50 – 12:15</b>	<b>Sanketh Tonannavar</b> RIMM Lab Probabilistic Analysis of Wood Properties Using Nondestructive Evaluation Technique	<b>Dr Pradipta Biswas</b>	<b>Apoorv Bhatt</b>	38
<b>12:15 – 12:40</b>	<b>Md. Aijaz Siddiqui</b> SCALE Lab Contact Pressure as an Indicator of Postural Stability	<b>Dr Pradipta Biswas</b>	<b>Apoorv Bhatt</b>	41
<b>12:40 – 13:05</b>	<b>Saumya Srivastava</b> HER Lab Lane Detection and Tracking using Camera Sensor	<b>Dr Pradipta Biswas</b>	<b>Apoorv Bhatt</b>	44
<b>13:05 – 14:05 LUNCH BREAK</b>				

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<b>19<sup>th</sup> Aug: Afternoon Session (D2AN)</b>				
<b>14:05 – 14:30</b>	<b>Sandeep K T</b> HER Lab Quantitative Assessment of Neuromotor Development Disorders in Infants	<b>Prof. Anindya Deb</b>	<b>Naveen Kumar</b>	56
<b>14:30 – 14:55</b>	<b>Sanika Abhijit Paranjape</b> SIAM Lab Study of Magnesium Based Metal Matrix Composites (MMC) fabricated by in-situ formation of Polymer Derived Ceramic (PDC) particles using Severe Plastic Deformation (SPD) processes.	<b>Prof. Anindya Deb</b>	<b>Naveen Kumar</b>	86
<b>14:55 – 15:20</b>	<b>Arpan Laha</b> HER Lab Muscle Modelling Based on Statistical Approach of Microscopic Force Generation	<b>Prof. Anindya Deb</b>	<b>Naveen Kumar</b>	50
<b>15:20 – 15:45</b>	<b>Charu Tripathi</b> IDeaS Lab Identification of sources of variability in self-report ergonomic assessment of manufacturing tasks	<b>Prof. Anindya Deb</b>	<b>Naveen Kumar</b>	71
<b>15:45 – 16:00</b> <b>BREAK</b>				
<b>16:00 – 16:25</b>	<b>Sushree Kshirabdhi Tanaya</b> CAR Lab Optimization Of Mechanical Properties of Orthotropic And Cross-Ply Fiber-Reinforced Composite Laminates, And Numerical Prediction of Their Responses And Failures Under Dynamic Loading	<b>Dr Rina Maiti</b>	<b>Saumya Srivastava</b>	62
<b>16:25 – 16:50</b>	<b>Atheeth S</b> UTSAAH Lab Design, Development of High-Frequency pMUT-Arrays for intraoperative use in neurosurgical procedures	<b>Dr Rina Maiti</b>	<b>Saumya Srivastava</b>	53
<b>16:50 – 17:15</b>	<b>Priti Ranjan Panda</b> LAMFiP Design and performance of a modular, sensing-integrated and reconfigurable platform for metal additive manufacturing	<b>Dr Rina Maiti</b>	<b>Saumya Srivastava</b>	80
<b>17:15 – 17:40</b>	<b>Anubhab Majumder</b> IDeaS Lab Using SAPPPhIRE for Functional Modelling of Multi-state Systems	<b>Dr Rina Maiti</b>	<b>Saumya Srivastava</b>	47

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<b>20<sup>th</sup> Aug: Forenoon Session (D3FN)</b>				
<b>Timings</b>	<b>Presenters</b>	<b>Faculty Chair</b>	<b>Student Chair</b>	<b>Page No</b>
<b>9:30 – 9:55</b>	<b>Vishnu V S (ERP)</b> PLM Lab A hybrid approach for predictive modelling of KPIs in CNC machining operations	<b>Prof. Vishal Singh</b>	<b>Vinay Krishna Sharma</b>	65
<b>9:55 – 10:20</b>	<b>Ansuman Sahu</b> UTSAAH Lab In-Process Mitigation of Warpage in Fused Filament Fabrication Additive Manufacturing Process	<b>Prof. Vishal Singh</b>	<b>Vinay Krishna Sharma</b>	68
<b>10:20 – 10:45</b>	<b>Govind Kumar</b> SIAM Lab Mechanical behaviour of metallic material processed using HPCRS- severe plastic deformation process	<b>Prof. Vishal Singh</b>	<b>Vinay Krishna Sharma</b>	74
<b>10:45 – 11:10</b>	<b>Kausik Bhattacharya</b> IDeaS Lab Generating SAPPHIRE Model of Causality from Natural Language Description of Engineered and Natural Systems	<b>Prof. Vishal Singh</b>	<b>Vinay Krishna Sharma</b>	77
		<b>11:10 – 11:35</b> <b>BREAK</b>		
<b>11:35 – 12:00</b>	<b>Rajath S</b> RIMM Lab Design and development of Selective Catalytic Reduction (SCR) plate catalysts for De-NOx applications	<b>Prof. Vishal Singh</b>	<b>Md. Aijaz Siddiqui</b>	59
<b>12:00 – 12:25</b>	<b>Sameer Kumar Gautam</b> UTSAAH Lab Strain Elastography for Quantitative Tissue Characterization	<b>Prof. Vishal Singh</b>	<b>Md. Aijaz Siddiqui</b>	83
<b>12:25 – 12:50</b>	<b>Sanjay Singh</b> IDeaS Lab Assessment of Structuredness of Problems in Design	<b>Prof. Vishal Singh</b>	<b>Md. Aijaz Siddiqui</b>	92
<b>12:50 – 13:15</b>	<b>Subin Raj</b> I3D Lab Augmented Reality and Deep Learning based System for Assisting Assembly Process	<b>Prof. Vishal Singh</b>	<b>Krishnakant Bhole</b>	89
		<b>13:15 – 14:15</b>		

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LUNCH BREAK

20<sup>th</sup> Aug: Afternoon Session (D 3AN)

14:15 – 14:40	<b>Prajwal Prabhu</b> I4I Lab Assessing Situational Awareness in a Distributed Socio-Technical Systems		<b>Krishnakant Bhole</b>	95
14:40 – 15:05	<b>Vighneshkumar Prakashbai Rana</b> I4I Lab Combining Digitalisation with Modular Construction approaches in cities for adaptable built facilities		<b>Krishnakant Bhole</b>	101

15:05 – 15:30

VALEDICTORY