



THE PRODIGY

DEPARTMENT OF MECHANICAL ENGINEERING

NEWSLETTER - DECEMBER 2021

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Assistant Professor

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(IV/IV B.Tech.)

Principal's Message



I feel proud and honour to write this message because this newsletter is the confirmation of the commitment of Mechanical Engineering Department towards the outcome based education which is inline with the vision and mission of the department. I hope that the department will strive further to meliorate the quality of the education and bring laurels to the institute.

Dr. K. Ashoka Reddy

HoD's Message



A newsletter reflects the clear picture of all the activities by the Department. It's a matter of great pride and satisfaction for Mechanical Engineering to bring out the Newsletter. I'm confident that this issue of the Mechanical Engineering Department newsletter will shoot a positive signal to all the scholars, faculty and staff. Congratulations to the Editorial Board of this newsletter who have played significant role in negotiating the task. Sincere congratulations to staff members and students for their fruitful efforts during the period.

"Best Wishes"

Dr. K. Raja Narender Reddy

Students Placements during July to December 2021

WIPRO TALENT NEXT - 22



Akarapu Shiva Charan
B18ME001



Aachi Venkata Satya Ramanuja Charyulu
B18ME003



Chagam Manohar Reddy
B18ME004



Enugala Vamshidhar Reddy
B18ME011



Rajaju Sai Charan
B18ME015



Vamshi Kannoju
B18ME025



Komireddy Srikanth
B18ME030



Maraboina Manjunath Yadav
B18ME046



Pollapelli Bhavana
B18ME053



Paidakula Rahul
B18ME056



MD Ali Irshad
B18ME063



Pinninti Thilak Rao
B18ME064



Vemunuri Arun Teja
B18ME081



Daggu Anuj
B18ME082



Mekala Pavan Raj
B18ME083



Saminla Ramya Sri
B18ME115



Aditya D
B18ME128



Kudikala Vivek
B18ME143



Kaushik Mandalaju
B18ME181L



Jonnala Kowshik Babu
B18ME188L



Lokula Sannihith
B18ME189L

Kadivendi Swetha
B18ME197L

Students Placements during July to December 2021continued

COGNIZANT GENC - 22



Akarapu Shiva Charan
B18ME001



Chagam Manohar Reddy
B18ME004



Kontham Neeraj
B18ME017



Vamshi Kannoju
B18ME025



Pogula Akhil Teja
B18ME028



Maddi Ramya
B18ME034



Maraboina Manjunath Yadav
B18ME046



Bejjala Rohith Kumar
B18ME049



Pollapelli Bhavana
B18ME053



Shivani Gurrupu
B18ME067



Swetha Janardhan
B18ME071



Rama Manichander
B18ME077



Mekala Pavan Raj
B18ME083



Bojjam Bindu
B18ME092



Gaje Ramya
B18ME098



Vikas Guttikonda
B18ME107



Pingli Sindhuja Reddy
B18ME140



Dulam Akhila
B18ME151



Kudikala Vivek
B18ME143



Gajjala Rushitha
B18ME168



Lokula Sannihith
B18ME189L



Arimadla Sravan
B19ME190L

DXC Technologies (18)



Aachi Venkata Satya
Ramanuja Charyulu
B18ME003



JVS Hitesh
B18ME007



Nikhitha Modhe
B18ME009



Rajaju Sai Charan
B18ME015



Kanuganti Shanthan Rao
B18ME022



Kesari Ashish
B18ME024



Vaddepally Srikanth
B18ME026



Peddapatilolla Kireeti
B18ME031



Mamidala Yugendhar Reddy
B18ME043



Kakkerla Keerthana
B18ME045



Mudike Karthik Yadav
B18ME072



Aditya D
B18ME128



Gampala Vamshi
B18ME137



Saketh Ravi Teja
B18ME138



Thogiti Vishnu
B18ME139



Martha Paneesha
B18ME154



Kishnouth
Navneeth Kumar Yadav
B18ME156



Arimadla Sravan
B19ME190L

TCS NINJA - 06



Aachi Venkata Satya
Ramanuja Charyulu
B18ME003



Enugala Vamshidhar Reddy
B18ME011



Kontham Neeraj
B18ME017



Vamshi Kannoju
B18ME025



Katta Sumana
B18ME118



Arimadla Sravan
B19ME190L

ACCENTURE - ASE - 05



Maddi Ramya
B18ME034



Gaje Ramya
B18ME098



Nazrin
B18ME108



Medipelly Sravani
B18ME152



Arimadla Sravan
B19ME190L

Program Outcomes (POs) of B. Tech in Mechanical Engineering Program

- PO1 : Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- PO2 : Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- PO3 : Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4 : Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5 : Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6 : The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7 : Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8 : Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9 : Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.
- PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

VISION OF THE DEPARTMENT

- To be a centre of excellence in Mechanical Engineering, to provide the best teaching-learning and research environment, to produce high quality professionals and entrepreneurs to cater the needs of society.

MISSION OF THE DEPARTMENT

- M1 :** To impart quality education that builds strong ethical attitude, technical knowledge and professional skills by providing congenial teaching-learning environment.
- M2 :** To nurture the reasoning, problem solving and research capabilities of learners by providing the state-of-the-art facilities, to meet the changing needs of society.
- M3 :** To inculcate life-long learning and leadership traits for successful professional careers, by counseling and mentoring.

Program Educational Objectives (PEOs) of B. Tech in Mechanical Engineering Program

The graduates of Mechanical Engineering will be able to ...

PEO1	Technical Expertise (Capability)	apply a broad understanding of mechanical engineering, as well as concepts from mathematics, science, communication and computing, to solve specific problems in industry and associated engineering fields.
PEO2	Successful Career (Distinctiveness)	demonstrate distinctiveness, professional ethics, integrity and innovation in their chosen profession and work well as individuals and in teams to achieve sustainable development in diverse fields.
PEO3	Lifelong learning (Leadership)	adapt to a constantly changing field by pursuing higher education, professional development, and self-study in order to contribute to society's well-being.

Program Specific Outcomes (PSOs) of B. Tech in Mechanical Engineering Program

- PSO1 :** To apply learned principles and knowledge in various applications of materials, design, thermal, production and industrial engineering.
- PSO2 :** To model, analyze, design, develop and implement advanced mechanical systems or processes

Program Outcomes (POs) of PG - M. Tech (Design Engineering) Program

At the time of graduation, the postgraduates of DESIGN ENGINEERING will be able to ...

- PO1 :** independently carry out research / investigation and development work to solve practical problems
- PO2 :** write and present an effective technical report/ document
- PO3 :** demonstrate competence in the area of design engineering

Program Educational Objectives (PEOs) of PG - M. Tech (Design Engineering) Program

- PEO1 (Research and Innovation) :** Engage in research, innovation and in teaching in Higher Education institutions
- PEO2 (Technical expertise and Successful career):** Excel in profession in industry, and entrepreneurship with updated technologies in the domain of design engineering
- PEO3 (Soft skills and Lifelong learning):** Exhibit professional ethics, effective communication and teamwork in solving engineering problems by adapting contemporary research towards sustainable development of society

Program Specific Outcomes (PSOs) of PG - M. Tech (Design Engineering) Program

The postgraduates of DESIGN ENGINEERING will be able to...

- PSO1** apply knowledge of design engineering for development of effective and innovative solutions to engineering problems
- PSO2** apply appropriate methodology, contemporary hardware and software tools to solve complex engineering problems in the domain of design engineering

Change of Charge



Dr. K. Raja Narender Reddy has taken the charge as HoD on 30-11-2021 from Dr. K. Sridhar.

Congratulations...!



Dr. J. Laxman

Sri J. Laxman, Assistant Professor, Department of Mechanical Engineering, Kakatiya Institute of Technology and Science, Warangal (KITSW), has been awarded Ph.D. degree for his thesis titled *"Experimental Studies and Analysis of Electric Discharge Machining process Parameters on Titanium super Alloy "* by the Kakatiya University, Warangal in 2021.



Dr. P.S.S. Murthy

Sri P. Satya Srinivasa Murthy, Assistant Professor, Department of Mechanical Engineering, Kakatiya Institute of Technology and Science, Warangal (KITSW), has been awarded Ph.D. degree for his thesis titled *"Analysis and optimization of mass distribution of links for balancing of shaking effects in a spatial mechanism"* by the JNTUK University, Kakinada in October, 2021

SAE Activities:

REV-IT 2021 ENDURANCE RACE: Students participated in Rev-it (A virtual racing challenge by Formula Bharat), hosted by IR Esports in the month of November and made into the semi-finals.



BICYCLE DESIGN COMPETITION 2021: Students registered for the SAE India Bicycle design competition, 13th October, 2021 at Chennai.

SAE INDIA SOUTHERN SECTION		Bicycle Design Competition 2021 Registration Form			
Team Name		Force Racing			
Team Captain Name		Sainath Reddy.J			
University/Collage Name		Kakatiya Institute of Technology and Science			
University/Collage Address		Erragattu hillock, Hanmakonda, Warangal, Telangana			
S. No	Student Name	E-Mail ID	SAE Membership ID	Contact Number	Signature
1	Sainath Reddy	jammulasainathreddy@gmail.com	7200420494	6301971765	sainath
2	Vamshi Krishna	rayekantivamshikrishna@gmail.com	Applied for new membership	9182669013	vamshi
3	Akash Kanagala	kanagalaakash11@gmail.com	Applied for new membership	7981313853	akash
4	Ajay.T	ajayakthalia@gmail.com	Applied for new membership	9182258505	ajay
5	Vishnu Vardhan.K	kalva.vishnuvardhan123@gmail.com	Applied for new membership	8187828171	vishnu
6	Sai Tharun.P	saitharunpenchala@gmail.com	Applied for new membership	8328263450	tharun
7	Sai Charan.G	saicharan74677@gmail.com	Applied for new membership	7989780743	saicharan
Faculty Advisor Details					
S. No	Name	E-Mail ID	SAE Membership ID	Contact Number	Signature
1	K.Kishor Kumar	kkk.me@kitsw.ac.in	Activating ID	9440431548	kishor.k

MESA Activity List during June to December 2021

Events taken place as a part of Mechanical Engineering Student Association (MESA).



MESA poster launch on 15th Sep 2021



An Interaction of Mechanical Engineering: Spectrum of Possibilities by **Shravan Anand** on 2nd Nov 2021



MESA Inaugural session conducted on 9th Nov 2021



Sumshodini'21 Poster Release by **Dr. K. Raja Narender Reddy**, HoD, MED. on 28th Nov 2021

Journals published by the faculty during July to December 2021

- 1) Dr. Shankuntala Ojha, "Sustainable Thermo-chemical Extraction of Amorphous Silica from Biowaste", Silicon, 1876-9918, 20th July 2021.
- 2) Dr. Shankuntala Ojha, "Experimental evaluation and comparison of silica/biocarbon particulate-epoxy composites for high-strength applications", Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, <https://doi.org/10.1177/14644207211043506>, 16th August 2021.
- 3) Dr. Shankuntala Ojha, "Enhanced Mechanical Properties of Glass Fibre Epoxy Composites By 2D Exfoliated Graphene Oxide Filler", Ceramic International, 0272-8842, 9th September 2021.
- 4) Dr. Md. Sameer, Dr. Ch. Naresh, "Effect of Process Parameters During Electric Discharge Machining Of Maraging Steel And Optimization Using Taguchi-DEAR Method", World Journal of Engineering, 1708-5284/[DOI 10.1108/WJE-07-2021-0434], 16th October 2021.
- 5) Dr. Shankuntala Ojha, "A review on mechanical and In-vitro studies of polymer reinforced bioactive glass-scaffolds and their fabrication techniques", Ceramic International, 0272-8842, 21st November 2021.
- 6) Dr. Shankuntala Ojha, "Research on Mechanical and Erosion Behaviour of Stepped Polymeric Functionally Graded Materials Reinforced with Aluminium", Polymer composites, 1548-0569, 22nd November 2021.

Research Papers presented by the faculty at different conferences during July to December 2021

- 1) Dr. K. Raja Narendra Reddy, V. Srikanth, P. Anil Kumar, "Investigation of Mechanical & Thermal Properties of PF/KGG Bio-Composites", Proceedings of International Conference on Advanced Manufacturing & Materials Processing (CAMMP-2021), 24th-25th July, 2021, MNIT Jaipur.
- 2) Dr. K. Raja Narendra Reddy, V. Srikanth, "Effect of Chemical Modification on Physical Properties of Coir Fiber/KGG Bio-Composites", Proceedings of International Conference on Advanced Manufacturing & Materials Processing (CAMMP-2021), 24th-25th July, 2021, MNIT Jaipur.
- 3) Dr. K. Raja Narendra Reddy, V. Srikanth, "Development And Evaluation of Dielectric Properties On OPME/KGG-Bio Composites", Proceedings of International Conference on Advanced Manufacturing & Materials Processing (CAMMP-2021), 24th-25th July, 2021, MNIT Jaipur.
- 4) Dr. K. Raja Narendra Reddy, V. Srikanth, "Visco-elastic and Thermal behavior of Oil Palm Mesocarp Fibre/Kondagogu Gum Bio-composites", Proceedings of International Conference on Advanced Manufacturing & Materials Processing (CAMMP-2021), 24th-25th July, 2021, MNIT Jaipur.
- 5) Dr. U. Shrinivas Balraj, "Multi-objective Optimization of Rotary EDM of Aerospace Nickel Super Alloy using Taguchi-Entropy Weight-Based Grey Relational Analysis", Fourth International Conference on Manufacturing, Material Science And Engineering 2021, ICMMS21, 25th August, 2021.
- 6) Dr. A. Devaraj, "Electrical Discharge Machining of SiC Reinforced 6061-T6 Aluminum Alloy Surface Composite Fabricated by Friction Stir Processing", International conference on Design and manufacturing aspects for Sustainable Energy-2021, [https://doi.org/10.1051/E3SWeb of Conferences 309, 01044 \(2021\) e3sconf/202130ICMED 2021 901044](https://doi.org/10.1051/E3SWeb of Conferences 309, 01044 (2021) e3sconf/202130ICMED 2021 901044), 25th August, 2021.
- 7) Dr. Shankuntala Ojha, "Overview of Gel Casted Fused Silica Ceramics", 2nd International Conference on Chemical, Bio & Environmental Engineering (CHEMBION-2021), 20th August 2021.
- 8) Dr. Shankuntala Ojha, G. Sumithra, "Evaluation of Abrasive wear of Bio-waste based silica/carbon particulate epoxy composites", 2nd International Conference on Chemical, Bio & Environmental Engineering (CHEMBION-2021), 20th August 2021.
- 9) G. Sumithra, "Analysis And Comparison on Mechanical Properties of A Geometry By Using FEA", 2nd International Conference on Chemical, Bio & Environmental Engineering (CHEMBION-2021), 20th August 2021.
- 10) Dr. P. Prabhakara Rao, "Production and Testing of Al-Ferroniobium Composites", ICAMS 2021, 26th November 2021.
- 11) Sri. Ch. Karunakar, Dr. M. Om Prakash, "Investigation of Mechanical and Morphological Studies of Cellulose Reinforced Isophthalic Polyester Composites", Environmentally Benign Processes, Products and Materials for Sustainable Ecosystem (EBPPM 2021), 19th - 20th November 2021.
- 12) Sri. S. Chandramouli, "Modelling and Analysis of EDM Process through Response Surface Methodology and Artificial Neural Networks", (CIMS-2021) 2nd International Conference on Industrial and Manufacturing Systems, 12th November 2021.
- 13) Sri. V. Pradeep, Sri. V. Rajesh, "Experimental Investigation and Characterization of Friction welded AA6082 and MS BS 970 Dissimilar Metals", 2nd International conference on Industrial and Manufacturing Systems, 11th November 2021.
- 14) V. Rajesh, "Multi-objective Optimization of Rotary EDM of Aerospace Nickel Super Alloy using Taguchi-Entropy Weight-Based Grey Relational Analysis", ICAMS 2021, 27th December 2021.
- 15) Dr. P. Srikanth, "Characterization of process parameters in Micro EDM on Stainless steel", Second International Conference on Future Technologies in Manufacturing, Automation, Design and Engineering, 18th December 2021.

Expert Lectures delivered by the Faculty during July to December 2021

1. Dr. K. Raja Narendra Reddy, "Green Composites", KITS Warangal, ISTE sponsored One week FDP on Emerging Trends In Advanced Materials And Manufacturing Processes (ETAMMP-2021), July- 2021.
2. Dr. K. Eswaraiah, "Optimization Techniques in Manufacturing Processes", KITS Warangal, ISTE sponsored One week FDP on Emerging Trends In Advanced Materials And Manufacturing Processes (ETAMMP-2021), July- 2021.
3. Dr. P. Srikanth, "Modern Manufacturing Process", KITS Warangal, ISTE sponsored One week FDP on Emerging Trends In Advanced Materials And Manufacturing Processes (ETAMMP-2021), July- 2021.
4. Dr. U. Shrinivas Balraj, "Introduction to micromachining and research scope", KITS Warangal, ISTE sponsored One week FDP on Emerging Trends In Advanced Materials And Manufacturing Processes (ETAMMP-2021), July- 2021.

5. Dr. P. Prabhakar Rao, "Simulation Of Sand Castings: Some Case Studies", KITS Warangal, ISTE sponsored One week FDP on Emerging Trends In Advanced Materials And Manufacturing Processes (ETAMMP-2021), July- 2021.
6. Dr. A. Devaraju, "Advances in Friction stir welding /Processing", KITS Warangal, ISTE sponsored One week FDP on Emerging Trends In Advanced Materials And Manufacturing Processes (ETAMMP-2021), July-2021.
7. Dr. K. Raja Narendra Reddy, "Awareness about Examinations & Evaluation Process", KITS Warangal, Student Induction Programme, November-2021.
8. Dr. K. Raja Narendra Reddy, "Engineering your future through life skills", Induction Program for First year Students of KUCE at Seminar Hall, Journalism building of SDLCE, on 16th November-2021.
9. Dr. K. Sridhar, "Balance & Enjoying Life", KITS Warangal, Student Induction Programme, November-2021.
10. Prof. P. Srikanth, "Significance of I2RE in Engineering", KITS Warangal, Student Induction Programme, November-2021.
11. Dr. U. Shrinivas Balraj, "Outcome Based Education", KITS Warangal, Student Induction Programme, November-2021.
12. Mr. A. Hari Kumar, "Life skills", KITS Warangal, Student Induction Programme, November-2021.
13. Sri. S Ramesh, "Importance of Yoga in Daily Life", KITS Warangal, Student Induction Programme, November-2021.

NPTEL courses attended by the faculty during July to December 2021

- * Sri. S. Chandramouli, Successfully completed the NPTEL Online certification course on Automation in Manufacturing with consolidated score of 57% in July - October 2021.
- * P. Anil Kumar, Successfully completed the NPTEL Online certification course on Engineering Drawing and Computer Graphics with consolidated score of 75% in July - October 2021.
- * Dr. Ch. Naresh, Successfully completed the NPTEL Online certification course on Product Design and Development with consolidated score of 72% in July - August 2021.
- * Dr. Ch. Naresh, Successfully completed the NPTEL Online certification course on Introduction to Industry 4.0 and Industrial Internet of Things with consolidated score of 75% in July -October 2021.
- * Sri. M. Anil Kumar, Successfully completed the NPTEL Online certification course on Engineering Drawing and Computer Graphics with consolidated score of 80% in July - October 2021.
- * Ms. P. Divya, Successfully completed the NPTEL Online certification course on Introduction to Composites with consolidated score of 65% in July - October 2021.

NPTEL courses attended by the students during July to December 2021

- * Rahul Vennam, Successfully completed the NPTEL Online certification course on Digital Circuits with consolidated score of 56% in July - October 2021.
- * Rahul Vennam, Successfully completed the NPTEL Online certification course on Analog Electronic Circuits with consolidated score of 62% in July - October 2021.
- * Rahul Vennam, Successfully completed the NPTEL Online certification course on Introduction to Internet of Things with consolidated score of 55% in July - October 2021.
- * Rebelly Harshavardhan, Successfully completed the NPTEL Online certification course on Programming, Data Structures and Algorithms Using Python with consolidated score of 69% in July - September 2021.
- * Rebelly Harshavardhan, Successfully completed the NPTEL Online certification course on Big Data Computing with consolidated score of 64% in July - October 2021.

Internships Registered by the students during July to December 2021

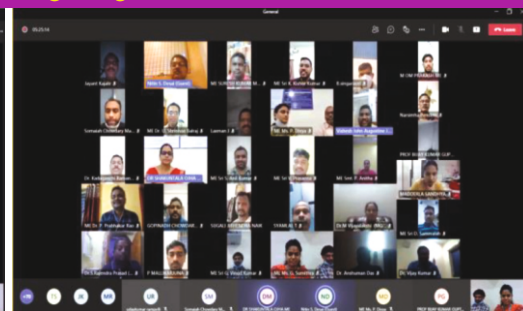
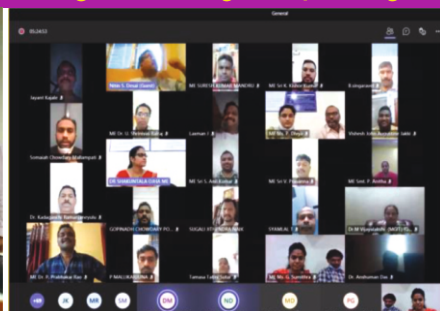
The students of B. Tech IV & VI semester of Mechanical Engineering carried out internships at various industries. The number of internships by B. Tech IV sem are 198, B. Tech VI sem are 172

The list of companies offered internship programme is listed here.

Internship Companies:

* TCS In Managing Innovation	-	180	* Autocad- cantercadd	-	01
* Simulation using ANSYS	-	03	* Coursera - manufacturing process with autodesk fusion 360	-	09
* TCS_ION Machine Learning	-	11	* Coursera - cad and digital manufacturing specialization	-	01
* Internshala - ANSYS	-	34	* Coursera introduction to cad, cam and practice cnc machining	-	01
* Internshala - CATIA	-	37	* Coursera (fatigue failures in different parts of engineering)	-	01
* Internshala - Solid works	-	12	* Coursera - introduction to mechanical engineering design and manufacturing using fusion 360	-	01
* Internshala - 3D Printing	-	04	* Coursera_fusion 360 (drone design)	-	01
* Coursera - Self Driving Car	-	03	* Coursera_intro to digital manufacturing with autodesk fusion 360	-	01
* Matlab- internshala	-	02	* Coursera fundamental of computing with python	-	01
* Matlab- tcs ion	-	01			

Faculty Development programme organized by the faculty during July to December 2021



Dr. Shakuntala Ojha, Ms. G. Sumithra, Ms. P. Divya Organised ISTE sponsored One week FDP on Emerging Trends In Advanced Materials And Manufacturing Processes (ETAMMP-2021), July 12th to 16th 2021.