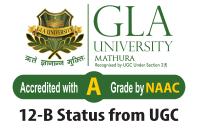
# **Technically Sponsored**





# 1<sup>st</sup> International Conference (Virtual Mode) on **"Simulation, Automation**

# & Smart Manufacturing (SASM 2021)"

20<sup>th</sup>- 21<sup>st</sup>, August 2021

#### About SASM 2021

The International Conference on Simulation, Automation & Smart Manufacturing (SASM 2021) will be organized by Department of Mechanical Engineering, GLA University, Mathura, India, 20-21, August 2021. The conference is technically sponsored by IEEE UP Section. Looking at the importance of Simulation, Automation & Smart Manufacturing and their applications in smart computation, industrial automation & robotics, smart manufacturing and power energy system to increasing environmental concerns. This conference theme is set on "Simulation, Automation & Smart Manufacturing", and it is planned to further explore these research areas. SASM 2021 also targets to present latest research on new strategies for overcoming the technical challenges of machine learning, IoT, mechatronics & robotics, Artificial Intelligence in manufacturing process, grid integration of renewable energy. This conference will be a launch pad for many researchers to present emerging topics on IoT application in renewable energy sector, energy storage, energy conversion, virtual manufacturing, robot performance evaluation and benchmarking, driver transmission and actuators, computational fluid dynamics, FEM, FEA, instrumentation and control etc.

SASM 2021 would have tutorials, keynotes, panel discussion, paper & poster presentations, and opportunities for industry/trade exhibits. It would offer ample networking opportunities for scientific & industrial collaboration.

Indexed by Scopus



# **Record No. 51857**

#### About IEEE

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE and its members inspire a global community to innovate for a better tomorrow through its more than 423,000 members in over 160 countries, and its highly cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted "voice" for engineering, computing, and technology information around the globe. Click here to know more about IEEE - https://www.ieee.org/

Organizing Chair Prof. Piyush Singhal Head, Dept. of Mechanical Engineering, GLA University Convenors Dr. Vijay Kumar Dwivedi (Asso. Prof. Dept. of Mechanical Engineering, GLA University) Dr. Rudra Pratap Singh (Asso. Prof. Dept. of Mechanical Engineering, GLA University)

#### **Co-Conveners**

Sanjeev Kumar Gupta Assistant Professor, Dept. of Mechanical Engineering, GLA University Harish Kumar Sharma Assistant Professor, Dept. of Mechanical Engineering, GLA University

## Tracks:

#### Smart Computation

Computational Fluid Dynamics FEA/FEM Instrumentation and Control Optimization of Systems Systems and components Drives, transmissions and actuators Digital and switched fluid power systems Modeling & Simulation Machine Learning Internet on Things (IoT)

### **Industrial Automation & Robotics**

Autonomous robotics Mobile robotics.

Intelligent robot systems,

Robot design, Micro and nano robots,

Robot Performance Evaluation and Benchmarking,

Industry Automation and IIoT, Image Processing, MEMS Fluid power in Mechatronics and Robotics

#### Smart Manufacturing

Optimization Techniques in Digital Manufacturing, Advanced Manufacturing Technologies Virtual Manufacturing Precision engineering and metrology Supply Chain Management CAD/CAM/CAE Process planning and Scheduling Artificial Intelligence in manufacturing processes Green Manufacturing

#### **Power and Energy Systems**

Renewable Energy High Voltage Engineering Energy Conversion AI in Power Systems Energy Storage Smart Grid IoT applications in renewable sector

#### **PAPER SUBMISSION**

The full length paper is to be submitted through Microsoft Conference Management Tool . To submit a paper in SASM2021 CLICK HERE: https://cmt3.research.microsoft.com/SASM2021

Authors are invited to submit full paper as PDF using the IEEE templates. Paper drafts must be prepared in English with a maximum of six (6) printed pages in IEEE format (10-point font, double-column and A4) including figures, tables and references.

## **IMPORTANT DATES:**

Paper Submission Starts :	October15, 2020
Last Date of Paper Submission :	June 30, 2021 (Final Deadline)
Acceptance Notification :	March 15, 2021 onwards
Last Date of Registration	July 15, 2021
Camera Ready Submission :	April 15, 2021 onwards
Conference Dates :	August 20 -21, 2021

#### **Registration Fee**

The authors agree that if the paper is accepted for oral/ poster presentation, at least one of the author will register for the conference and present the paper at conference venue.

Registration Link: https://forms.gle/839egTQfbTTmQxad7 The registration fee (inclusive of all taxes) is given below for your reference: Submit your paper now to get early bird

#### submission offer on registration fee up to 50%

submission oner on registration ree upto 50%				
Category	Submission Upto 15 <sup>th</sup> April	Submission Upto 15 <sup>th</sup> May	Submission Upto 15 <sup>th</sup> June	After 15 <sup>th</sup> June
Registration Fee (IEEE Members)				
International Participants	USD 150	USD 180	USD 225	USD 250
SAARC IEEE Members	USD 65	USD 80	USD 100	USD 120
Corporate Participants(in INR)	₹5000	₹6000	₹7000	₹8000
Academicians(in INR)	₹3500	₹4000	₹5000	₹6000
Students(in INR)	₹3000	₹3500	₹4000	₹4500
IEEE Life Member	Free			
Registration Fee (Non-IEEE Members)				
International Participants	USD 200	USD 240	USD 300	USD 350
SAARC Members	USD 100	USD 120	USD 150	USD 175
Corporate Participants(in INR)	₹5500	₹6500	₹7500	₹9000
Academicians(in INR)	₹4500	₹5500	₹6500	₹7500
Students(in INR)	₹3500	₹4000	₹4500	₹5000

## **Account Detail for Payment of Registration Fee**

A/C NAME: GLAU CONFERENCE & WORKSHOP ACCOUNT		
Account No:	19990100	
IFSC:	IOBA00019	
MICR:	281020006	
BANK:	Indian Overseas Bank,	
	GLA Engg. College, Mathura	

#### Committee

#### **Chief Patron**

Shri. Narayan Das Agrawal Hon'ble Chancellor GLA University, Mathura, India

#### **Co Chief Patron**

Prof. Durg Singh Chauhan Hon'ble Pro Chancellor GLA University, Mathura, India Patron

Prof. Phalguni Gupta Vice-Chancellor GLA University, Mathura, India

#### **Co Patron**

Prof. Anand Mohan Agrawal Pro-Vice-Chancellor

GLA University, Mathura, India

#### Chairperson

Prof. Anoop Kumar Gupta Director-IAH & Dean Academic Affairs GLA University, Mathura, India

#### Facilitator

Mr. Ashok Kumar Singh Registrar GLA University, Mathura, India Honorary General Chair Prof. J. Ramkumar Senior Member IEEE Department of Mechanical Engineering IIT Kanpur, India General Chair Prof. Dilip Kumar Sharma Senior Member IEEE Associate Dean (Academic C Professor Dept. of CEA GLA University, Mathura, India

#### **General Chair**

Prof. Kamal Sharma Member IEEE Associate Dean R & D GLA University, Mathura, India **Publication Chair** Dr. Manish Gupta Associate Professor Department of Mechanical Engineering MNNIT, Allahabad **Publication Co-Chair** Mr. Kuwar Mausam

Assistant Professor, Department of Mechanical Engineering **GLA University Mathura Organizing Chair Prof. Piyush Singhal** Member IEEE Head, ME GLA University, Mathura, India **Conference Chair & Convener** Dr. Vijay Kumar Dwivedi Member IEEE Associate Professor, Department of Mechanical Engineering **GLA University Mathura** Dr. Rudra Pratap Singh Member IEEE Associate Professor, Department of Mechanical Engineering **GLA University Mathura Conference Co-Convener** Mr. Sanjeev Kumar Gupta Assistant Professor, Department of Mechanical Engineering **GLA University Mathura** 

Mr. Harish Kumar Sharma

Assistant Professor, Department of Mechanical Engineering GLA University Mathura

## **Technical Program Chair**

Prof. Rajesh Purohit Department of Mechanical Engineering MANIT Bhopal Dr. Kuldeep Kumar Saxena Member IEEE Associate Professor, Department of Mechanical Engineering GLA University Mathura Finance Chair

Mr. Vikas Sharma Asst. Professor, Department of Mechanical Engineering GLA University Mathura

#### **Advisory Committee:**

Shri. Neeraj Agrawal, CEO, GLA University, Mathura, India Shri. Vivek Agrawal, CFO, GLA University, Mathura, India Dr. S. N. Singh, IIT Kanpur, India Dr. Asheesh Kumar Singh, MNNIT Allahabad Dr. Kumar Vaibhav Srivastava, IIT Kanpur, India Dr. Satish K. Singh, IIIT, Allahabad, India Dr. Prabhakar Tiwari, MMMUT Gorakhpur, India Dr. Rajat Kumar Singh, IIIT, Allahabad, India Dr. Mohd. Rihan, AMU Aligarh, U.P. India Dr. Aseem Chandel, Officiating Director, REC Mainpuri, U.P. India Dr. Vinay Rishiwal, Executive Committee Member, IEEE U.P. Section, India Dr. Pramod Kumar, Joint Secretary IEEE UP Section, India Dr. Danish Ather, Executive Committee Member, IEEE U.P. Section, India Mr. K. C. Mishra, Convener, Young Professional Affinity Group, IEEE U.P. Section, India Dr. Akhilesh Tiwari, IIIT, Allahabad, India Dr. Sunkulp Goel, Nanjing University of Science and Technology, China Dr. A. K. Pandey, Sunway University, Mal Dr. Yeshpal Singh, Ex. Chief Scientist (Sci Delhi, India Dr. K. K. Rai, Scientist G, BARC, Mumbai India Dr. Debanik Roy, Scientist, BARC, Mumbai India Dr. S. C. Sharma, IIT Roorkee, India

Dr. Sanjay Kumar Gupta, IIT BHU, India Dr. Dibakar Rakshit, IIT Delhi, India Dr. Rajeev Kumar, IIT Mandi, India Dr. Naveen Kumar, IIT Ropar, India Dr. Subrata Kumar Ghosh, Indian Institute of Technology (ISM), **Dhanbad India** Dr. Dr. Akhilendra Singh, IIT Patna, India Dr. K. Suresh, IIT Roorkee, India Dr. Mukul Shukla, MNNIT, Allahabad, India Dr. Raiesh Purohit, MANIT Bhopal Dr. Avanish Kumar Dubey, MNNIT ALLAHABAD, India Dr. Anuj Jain, MNNIT ALLAHABAD, India Dr. K.N. Pandey, MNNIT ALLAHABAD, India Dr. K. K. Shukla, Director NIT Jamshedpur, India Dr. Rajesh Kumar, NIT Kurukshetra, India Dr. Satish Kumar, NIT Jamshedpur, India Dr. Vishesh Ranjan Kar, NIT Jamshedpur, India Dr. Pawan Sharma, SVNIT Surat, India Dr. Arun Kumar Tiwari, IET, Lucknow, India Dr. Jeeot Singh, MMMUT Gorakhpur, India Dr. Onkar Singh, Harcourt Butler Technical University, Kanpur, India Dr. S. K. Srivastav, Davalbagh Educational Institute, Agra, India Dr. V. V. Tyagi, Sri Mata Vaishnodevi University J&K, India Dr. D. K. Singh, MMMUT Gorakhpur, India Dr. M. K. Singh, KEC Ghaziabad, India Dr. Hemant Kumar Singh, VBS Purvanchal University Jaunpur, India Dr. Debabrata Dutta, Visiting Professor, GLA University, Mathura, India Dr. Vinay Deolia, , GLA University, Mathura, India Dr. Ashish Sharma, GLA University, Mathura, Indi Dr. Charul Bhatnagar, GLA University, Mathura, I Dr. A S Jalal, GLA University, Mathura, India Dr. Aniruddha Pradhan, GLA University, Mathura, India Dr. Atul Bansal, GLA University, Mathura, India Dr. Diwakar Bhardwaj, GLA University, Mathura, India Dr. Amit Agrawal, GLA University Mathura India Track Chair/ Co-Chair Dr. Joy Prakash Mishra, NIT Dr. Jinesh Kumar Jain, MNIT Jaipur, India Dr. Amit Mishra, Thapar University Patiala, Punjab, India Dr. Vilas H Gaidhane, BITS Pilani Dubai Campus

Dr. Anand Singh Jalal, GLA University, Mathura, India Dr. Atul Bansal, GLA University, Mathura, India Dr. Sanjay Kumar Maurya, GLA University, Mathura, India Dr. Ashish Sharma, GLA University, Mathura, India Dr. Naveen Kumar Gupta, GLA University, Mathura, India Dr. Sujit Kumar Verma, GLA University, Mathura, India Dr. Manoj Kuma, GLA University, Mathura, India Dr. Vinay Kumar Tomar, GLA University, Mathura, India

#### **Technical Program Committee**

Dr. Sachin Kumar, IIT Ropar, India Dr. Girish Verma, IIT Indore, India Dr. Atul Kumar Sharma, IIT Jodhpur, India Dr. Vivek Kumar Patel, MNNIT Allahabad, India Dr. Manoj Kumar Singh, Dr. B. R. Ambedkar NIT Jalandhar Dr. Devendra Kumar Yadav, NIT Calicut Dr. Ravi Pratap Singh, Dr. B. R. Ambedkar NIT Jalandhar Dr. Harish Kumar, NIT Delhi India Dr. Varun Goel, NIT Hamirpur, India Dr. Abhishek Singh, NIT Patna, India Dr. Pritanshu Ranjan, BITS Pilani, Goa Campus, India Dr. B.P. Pandey, MMMUT Gorakhpur, India Dr. Arun Kumar Pandey, BIET Jhansi, India Dr. Saurabh Mani Tripathi, KNIT Sultanpur, India Dr. Sanjay Agrawal, IGNOU, India Dr. Rajesh Kumar, NIT Hamirpur, India Dr. Pawan Kumar Rakesh, NIT Uttarakhand, India Dr. Deepak Kumar, MANIT Bhopal, India Dr. M Ravi Kumar, MANIT Bhopal, India Dr. Ashok Kumar Dewangan, NIT Delhi, India Dr. Vikas Kukshal, NIT Uttarakhand, India Dr. M. K. Pradhan, MANIT Bhopal, India Dr. Rajneesh, NIT Kurukshetra, India Dr. Asim Gopal Barman, NIT Patna, India Dr. Anil Kumar Das, NIT Patna, India Dr. T. Ramesh, NIT Tiruchirappalli, India Dr. A. R. Paul, MNNIT Allahabad, India Dr. Ajay Bharati, MNNIT Allahabad, India Dr. Anindya Bhar, MNNIT Allahabad, India Dr. Ambrish Maurya, NIT Patna, India Dr. Yogesh Kumar, NIT Patna, India Dr. Param Singh, NIT Hamirpur, India Dr. Yogesh Prajapati, NIT Uttarakhand, India

Dr. Nitesh, NIT Delhi, India Dr. Sant Ram, NIT Hamirpur, India Dr. Dungali Shreehari, NIT Uttarakhand, India Dr. Anubhav Rawat, MNNIT Allahabad, India Dr. Akhilesh Chaudhary, NIT Hamirpur, India Dr. Siddhartha, NIT Hamirpur, India Dr. Jyoti Vimal, MITS Gwalior, India Dr. Gavendra Norkey, LPU, Punjab, India Dr. Navneet Kumar Pandey, JSS Academy of Technical Education, Noida, India Dr. Saurabh Kumar Gupta, RKGIT Ghaziabad, India Dr. Dipak Kumar Jha, RKGIT Ghaziabad, India Dr. Mayank Agrawal, PSIT Kanpur, India Dr. S. P. Dwivedi, GLBITM, Greater Noida Dr. Kishore Chandra, Graphic Era Hill University, Dehradun, India Dr. Vijay Verma, BIET Jhansi, India Dr. Amit Sharma, JUET Guna MP, India Dr. Manoj Kumar Agrawal, GLA University, Mathura, India Dr. Pradeep Kumar Singh, GLA University, Mathura, India Dr. Sujit Kumar Verma, GLA University, Mathura, India Dr. Navin Kumar Gupta, GLA University, Mathura, India Dr. Sanjay Kumar Maurya, GLA University, Mathura, India Dr. Subash Chandra, GLA University, Mathura, India Dr. Abhilash Gupta, GLA University, Mathura, India Dr Akankasha Shukla, GLA University, Mathura, India Dr. Ashish Sharma, GLA University, Mathura, India Dr. Anant Ram, GLA University, Mathura, India Dr. Rohit Agrawal, GLA University, Mathura, India Dr. Shashi Agrawal, GLA University, Mathura, India Dr. Neeraj Gupta, GLA University, Mathura, India Dr. Manoj Kumar Agrawal, GLA University, Mathura, India Dr. Mayank Srivastav, GLA University, Mathura, India Mr. Ravindra Pratap Singh, GLA University, Mathura, India **Organizing Committee Finance Committee** Mr Vikas Sharma, GLA University, Mathura, India Mr V. V. Upadhyay, GLA University, Mathura, India Publicity Committee Mr. Pankaj Sonia, GLA University, Mathura, India Mr Raj Kumar Sharma, GLA University, Mathura, India Mr Nitin Kukreja, GLA University, Mathura, India Website & Media Committee Mr Harish Kumar Sharma, GLA University, Mathura, India

Mr Gaurav Pant, GLA University, Mathura, India Mr. Gaurav Bhardwaj, GLA University, Mathura, India Invitation & Registration Committee Mr. Manish Kr. Rawat, GLA University, Mathura, India Mr Sunil Kumar, GLA University, Mathura, India Mr Awadhesh Kumar Sharma, GLA University, Mathura, India Hospitality & Transport Committee Mr Kuwar Mausam, GLA University, Mathura, India Mr Alok Soni, GLA University, Mathura, India Mr Alok Soni, GLA University, Mathura, India Inaugural, Cultural & Food Committee Mr. Prashant Dixit, GLA University, Mathura, India Mrs. Soni Kumari, GLA University, Mathura, India Mr. Aneesh Kumar, GLA University, Mathura, India

#### **Key Note Speakers**

Dr. Om Prakash Yadav Professor, Department of Industrial and Manufacturing Engineering NDSU, North Dakota, USA Dr. Brian A. Barsky Professor Emeritus, University of California, USA Dr. A. K. Pandey, Research Centre for Nano-Materials and Energy Technology School of Science and Technology Sunway University, Malaysia Dr. Debanik Roy Scientist, BARC, Mumbai, India Mr. R. K. Baranwal General Manager-Operations Siemens Ltd, India Mr. Rajendra Prasad Singh Head-CPP-Operation Hindalco-Mahan Aluminium, India Track Chair/ Co-Chair Dr. Joy Prakash Mishra, NIT Kurukshetra, India Dr. Jinesh Kumar Jain, MNIT Jaipur, India Dr. Amit Mishra, Thapar University Patiala, Punjab, India Dr. Vilas H Gaidhane, BITS Pilani Dubai Campus Dr. Anand Singh Jalal, GLA University, Mathura, India Dr. Atul Bansal, GLA University, Mathura, India Dr. Sanjay Kumar Maurya, GLA University, Mathura, India Dr. Ashish Sharma, GLA Univer Dr. Naveen Kumar Gupta, GLA Dr. Sujit Kumar Verma, GLA University, In Dr. Manoj Kuma, GLA University, Mathura, India Dr. Vinay Kumar Tomar, GLA University, Mathura, India

# **About Organizing Institute**

GLA University is one of the premier universities in India, situated in Northern India. The university was established by our present Chancellor, Shri Narayan Das Agrawal in 1998. The chancellor envisioned GLA as a quality educational institution to serve the higher education needs of the youth of the region and beyond. The institute was accorded the status of university under the U.P. State Legislative Act of 2009 (UP Act 21 of 2010). Recently the University was accredited with 'A' grade by NAAC. It spread across 110 acres of land and is home to more than 12,000 students, enrolled in a variety of professional courses. It boasts of well designed and maintained buildings, contemporary laboratories, spacious residential complexes and recreational facilities. The facilities of such kind and grandeur make the GLA campus one of the best in the region, providing its students an ideal environment to hone their skills in an increasingly competitive and demanding world. Under the banner of GLA University, Department of Mechanical Engineering is constantly and consistently working to achieve core objectives of the University. Department facilitates, state of art laboratories where students can realize their ideas into tangible objects in terms of new technologies and engineering products. Department has Solar Energy Research Centre (SERC), Nano Micro Research Centre (NMRC), Automotive Research Centre and well established workshops and other laboratories.

Department is consistently delivering high quality research. The Faculty of the department are highly qualified and extending their expertise in academic and research.. The department of Mechanical Engineering blossoms with the specialized technical and professional excellence and as on date it has developed into a pillar of strength of GLA University. In order to cater the need of skilled professionals for rapidly growing industrial base the department is offering Undergraduate (B.Tech) in Mechanical Engineering, Mechatronics Engineering, Automobile Engineering and Smart Manufacturing Post Graduate (M Tech) and Doctoral (Ph D) programmes in Mechanical Engineering. The department is constantly decisive to educate the mechanical engineers of tomorrow by integrating the theoretical and practical knowledge and accentuating on the learning and critical thinking.

Contact us **Phone:** +91 -8171603555, +91 -9457265122 **E-mail:** sasm2021@gla.ac.in **Website:** www.gla.ac.in/sasm