

Dr. Asheesh Kumar

Assistant Professor

Education Qualifications: Ph.D.

Specialization: Materials Science (Energy Storage and Conversion)



ADDRESS:

B – Block, Room No. B -102

JNTUH ID: 0790-170213-204405

EMAIL:

asheeshkumar_mct@mgit.ac.in

DATE OF JOINING: 23-07-2019

EXPERIENCE - 7 Years

• Teaching – 7 Years

SUMMARY:

- Publications 11
- Conferences 13
- Patents 3

EVENTS:

- Organized 9
- Attended 50+

Membership of Professional Bodies:

- 1. Indian Society for Technical Education Life Member (ISTE), LM-132098, 2021.
- 2. Iron Carbon Society Life Membership, LM-346, 2012.

Responsibilities Held at Institution Level:

- 1. As bus in-charge, monitoring and helping the transport in-charge in keeping records in student busses.
- 2. Campus monitoring duty.
- 3. Invigilation duties for Internal/mid and end semester exams.

Responsibilities Held at Department Level:

- 1. Continuously updating files for NBA, Autonomous and NAAC.
- 2. As a class in-charge have constantly monitored the student activities and communicating the same with parents regarding their academic performance in college.
- 3. As a mentor constantly mentoring the assigned students for the academic growth.

Courses Handled at Under Graduate/Post Graduate Level:

• **UG:** Engineering Mechanics, Renewable Energy Sources, Non-Conventional Sources of Energy, Materials Science and Metallurgy, Manufacturing Science, Heat Transfer

Publications:

- 1. Asheesh Kumar et al. Impact of ceramic filler and the crystallite size of polymer matrix on the ionic transport properties of lithium triflate/poly (vinylidene fluoride-co-hexafluoropropene) based polymer electrolyte, Electrochim. Acta, 2016. 215: pp. 1-11 (Elsevier; ISSN: 0013-4686
- 2. Asheesh Kumar et al. Li-Ion Transport, Structural and Thermal Studies on Lithium Triflate and Barium Titanate Incorporated Poly (Vinylidene Fluoride-Co-Hexafluoropropene) Based Polymer Electrolyte, Solid State Ionics, 2016, 289, pp. 150-158 (Elsevier; ISSN: 0167-2738
- Asheesh Kumar et al. Structural and ion transport properties of [(AgI)x(AgBr)0.4-x](LiPO3)0.6 and (AgBr)x(LiPO3)(1-x) solid electrolytes. Int.
 J. Appl. Glass Sci., 2016, doi: 10.1111/jiag.12195 (The American Ceramic Society and Wiley Periodicals, Inc., ISSN: 2041-1294
- 4. Asheesh Kumar et al. Structural and ion transport properties of lithium triflate/poly (vinylidene fluoride-co-hexafluoropropene) based polymer electrolytes: Effect of lithium salt concentration, J. Elastom. Plast., 2016, pp. 1-14 (Sage; ISSN: 0095-2443
- Mr. Zafar Ullah Shareef, Dr. Asheesh Kumar, V. Chandra shekar goud, modeling and analysis of pressure vessel using frc materials, Modeling and Analysis of Pressure Vessel Using FRC Materials, International journal of Professional Engineering Studies, Volume 9 / Issue 3 / NOV 2017
- 6. Asheesh Kumar et al. Preparation and mechanical properties of jute fiber reinforced epoxy composites, Ind. Eng. Manage. 6 (4), 2017, pp. 234.(ISSN:



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- 2169-0316
- 7. Ashwin Kumar Singh, Dadige shiva Shankar, Asheesh Kumar*, Fabrication and damage analysis of CFRP using four point bending test, Indian J. Sci. Res. 17(2), 2017, pp. 278-282, (ISSN: 0976-2876(Print) ISSN: 2250-0138(Online)
- 8. T. Sharma, Y. Vamsi Krishna and A. Kumar, Buckling of bi-layers under inplane compression, Materials Today: Proceedings, Volume 46, Part 11, 2021, Pages 5530-5534, ISSN: 1369-7021.
- Dr. Asheesh Kumar, Mohammed Shasaif Hussain, Saad Khaleel Ahmed, Design and Simulation of Counter Flow Heat Exchanger with Fins and Internal Ribs, International Advanced Research Journal in Science Engineering and Technology, Volume 9 Issue VI Jun 2021, Pages 3221-3227
- 10. Dr. Asheesh Kumar, Varanasi Shanmukha Shashank, Design of Stair Power Generator, GIS Science Journal, Volume 8, Issue 6, 2021, Pages 1914-1918.
- 11. Dr. Asheesh Kumar, Efficient Solar Panels with Phase Change Materials And Their Applications, Journal of Xi'an University of Architecture & Technology, Volume XIII, Issue VI, June 2021.

Conferences:

- Dr. P. Badari Narayana, Dr. S. Narasimha Kumar, Dr. Asheesh Kumar, Modelling, simulation and analysis of 5 MWe Linear Fresnel Collector based solar thermal energy conversion cycle with energy storage, International Congress on Renewable Energy (I CORE 2021), 2021
- 2. Dr. Asheesh Kumar et al. Bamboo: An Eco-Friendly Material For Structural Applications, Presented in National Conference on Recent advances in technology & engineering (CRATE-2021), VEMUIT, Chittor, AP.
- 3. Ashwin Kumar Singh, Dadige shiva Shankar, Asheesh Kumar, "Fabrication and damage analysis of CFRP using four point bending test", Indian Proc. of the International Conference on Recent Innovations in Engineering and Technology, 2017, CRIEAT-2017, 21-22 Dec., 2017, Hyderabad, pp. 278-282.
- 4. Asheesh Kumar, Siddanathi N. Rao, Malay K. Das and Kamal K. Kar, "LiPO3 based fast ionic conductor for solid state lithium secondary batteries", Proc. of the Intl. Conf. on Nanotechnology for Better Living, 2016, NBL-2016, 25-29 May, 2016, Srinagar, India, Editors K. K. Kar, A. Shah and R. Sharma, Vol.3, No.1, pp. 99, Research Publishing, Singapore. DOI:10.3850/978-981-09-7519-7nbl16-rps-99
- 5. Asheesh Kumar, Kamal K. Kar and Malay K. Das, "Activated nano-carbon gelelectrolyte supercapacitor", Proc. of the Intl. Conf. on Nanotechnology for Better Living, 2016, NBL-2016, 25-29 May, 2016, Srinagar, India, Editors K. K. Kar, A. Shah and R. Sharma, Vol.3, No.1, pp. 86, Research Publishing, Singapore. DOI:10.3850/978-981-09-7519-7nbl16-rps-86
- 6. Asheesh Kumar, Kamal K. Kar and Malay K. Das, "High Performance Porous Carbon Electrodes for Supercapacitor", National conference on Carbon materials, (NCCM15), November 26-28, 2015, NPL, New Delhi, pp. 99.
- 7. Asheesh Kumar, Kamal K. Kar and Malay K. Das, "Templated mesoporous carbon electrodes for EDLCs", National conference on Materials Science and Technology (NCMST-2015), July 06-08, 2015, IIST, Thiruvananthapuram, pp. 79-80.
- 8. Asheesh Kumar, Kamal K. Kar and Malay K. Das, "Porous Carbon: Material for electrical double layer capacitors", National conference on Microscopy in Materials Science and Biomimetic Technology organized by Defense Materials and Stores Research and Development Establishment (DMSRDE) and Academy of Microscope Science and Technology, February 26-28, 2015, DMSRDE, Kanpur, pp. 154.
- 9. Asheesh Kumar, Kamal K. Kar, and Malay K. Das, "Design of microchannels in



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- bipolar plate for efficient water management in polymer electrolyte membrane fuel cells", National conference on Carbon Materials (CCM12), November 01-03, 2012, BARC, Mumbai, pp. 126.
- 10. Asheesh Kumar, Rohit Mittal, Anshuman Srivastava, "Ecofreindly Materials: Serving with care" National Conference on Recent Advances in Mechanical Engineering (RAME 2012), Department of Mechanical Engineering, Hindustan College of Science and Technology, Agra, Mathura, UP, India, 08-09th June, 2012, pp. 251-256.
- 11. Asheesh Kumar, Rohit Mittal, Paridhi Malhotra, "A study on chatter reduction in milling" National Conference on Recent Advances in Mechanical Engineering (RAME 2012), Department of Mechanical Engineering, Hindustan College of Science and Technology, Agra, Mathura, UP, India, 08-09th June, 2012, pp. 372-378.
- 12. K.M. Gupta and Asheesh Kumar, "Development and Characterization of a Novel Dual Green Fibre Composite with Different Compositions of Material System" presented and published in the proceeding of the Europe-American Multidisciplinary Academic International Conference on Arts and Science (IJAS), Paris, France, April 16-19, 2012.
- 13. K.M. Gupta and Asheesh Kumar, "Emerging High Pressure Materials and Technologies for the Future." National Conference on Emerging Materials and Technologies for India 2020", Department of Metallurgical and Materials Engineering, National Institute of Technology, Tiruchirappalli, Tamilnadu, India, January 24-25, 2008, pp. 168-175.

Events Organized:

FDPs/STTPs:

- As Member of Organizing Committee organized A One Week AICTE Sponsored, Online Short Term Training Programme (STTP) Recent Advances in Micro Electro Mechanical Systems (MEMS), Mechatronics and their Applications for Future Challenges, 07-12 December 2020
- 2. As Member of Organizing Committee organized A One Week AICTE Sponsored, Online Short Term Training Programme (STTP) Recent Advances in Micro Electro Mechanical Systems (MEMS), Mechatronics and their Applications for Future Challenges, 02-07 November 2020
- 3. As Member of Organizing Committee organized A One Week AICTE Sponsored, Online Short Term Training Programme (STTP) Recent Advances in Micro Electro Mechanical Systems (MEMS), Mechatronics and their Applications for Future Challenges, 21-26 September2020
- 4. As Member of Organizing Committee organized A One Week AICTE Sponsored, Online Short Term Training Programme (STTP) Recent Advances in Micro Electro Mechanical Systems (MEMS), Mechatronics and their Applications for Future Challenges, 24-29 August 2020
- 5. As coordinator organized A one week online Faculty Development Program on Advanced Optimization Techniques for Research Problem Solving, 4-8 August 2020.
- 6. As Coordinator organized A one week online Faculty Development Program on Recent Trends in Manufacturing, 28 July-01 August, 2020.



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As Co-Convener organized A one week online Faculty Development Program on Recent Advances in Renewable Energy & Energy Efficiency Technologies 21-25 July, 2020

8. As Convener organized one week online Faculty Development Program on Recent Advances in Mechanical Engineering: A Research Perspective 6-10July, 2020.

Events Attended:

FDPs/STTPs:

- 1. Attended online FDP organized by Personal management and organizational behaviour in industry at Sri Ranganathar Institute of Polytechnic College, Coimbatore 29/09/2021 to 30/09/2021.
- 2. Attended, AICTE Training And Learning (ATAL) Academy Online FDP on Advancement in Material Processing Technologies, at Tapi Diploma Engineering College, Nagpur, 09/08/2021 to 13/07/2021.
- 3. Attended AICTE Training And Learning (ATAL) Academy Online FDP on Electrospinning Nanofibers: Science, Technology and Applications, at Indian Institute of Information Technology, Nagpur, 12/07/2021 to 16/07/2021.
- 4. Attended AICTE-STTP on Machine Learning on recent Trends and Applications, at Sri Nivasa Ramanujan Institute of Technology, Ananthapuramu, AP, 7-12 June 2021.
- 5. Attended AICTE Training And Learning (ATAL) Academy Online FDP on "Photonics" at Central University of Jharkhand, from 18/01/2021 to 22/01/2021.
- 6. Attended Two week faculty development programme (Phase-ii), approved by AICTE on Renewable Energy Intervention in Industry, Commercial and Domestic Application from Rajeev Gandhi Memorial College of Engineering and Technology, Nandyal - 518 501, Andhra Pradesh from 14/12/2020 to 26/12/2020.
- 7. Attended AICTE Sponsored One Week Online STTP on "Research Aspects of Powder Metallurgy Based Direct Digital Manufacturing" at Mepco Schlenk Engineering College, Sivakasi, Tamil Nadu from 30/11/2020 to 05/12/2020.
- 8. Attended AICTE Training And Learning (ATAL) Academy Online FDP on Quantum Computing at, Inderprastha Engineering College from 09-11-2020 to 13-11-2020.
- 9. Attended AICTE Sponsored STTP on Ingraining Wisdom for Engineering the Education at at KIT-Kalaignarkarunanidhi Institute of Technology, Coimbatore, Tamilnadu from 16-11-2020 to 21-11-2020.
- 10. Attended AICTE Training And Learning (ATAL) Academy Online FDP on Robotics at at NIT Durgapur from 24-11-2020 to 28-11-2020.
- 11. Attended One-Week Online Faculty Development Program on Outcome Based



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- Education and Accreditation, at ISTE Telangana Section in association with JNTUH College of Engineering, Jagtial; Mahatma Gandhi Institute of Technology, Hyderabad from at 05-10-2020 to 9-10-2020.
- 12. Attended One-Week International Webinar/FDP on Relevance of Mathematics to Core Engineering Sciences at MGIT, Hyderabad from 12-10-2020 to 16-10-2020.
- 13. Attended AICTE Sponsored Six Days Online FDP Manufacturing Applications of Micromachining with Emphasis on Make in India at RMK College of Engineering and technology, Tiruvallur from 19-10-2020 to 24-10-2020.
- 14. Attended ATAL FDP Augmented Reality (AR)/ Virtual Reality (VR) at CBIT Hyderabad from 26-10-2020 to 30-10-2020.
- 15. Attended TEQIP -3 Sponsored, National Workshop " Academia to Industries: Challenges and Opportunities (AICO-2020) 14 at KEC, Katihar from at 31-8-2020 to 5-9-2020.
- 16. Attended AICTE Sponsored STTP on Finite Element Analysis for Engineering Applications at SREC, Tambaram from 07-09-2020 to 12-9-2020-8-14.
- 17. Attended AICTE Training And Learning (ATAL) Academy Online FDP on "Online Teaching and Learning Technologies" organised by Motilal Nehru National Institute of Technology, Allahabad, Surat, 17-8-2020 to 21-8-2020.
- 18. Attended AICTE Training And Learning (ATAL) Academy Online FDP on "Blended Learning and Flipped Classroom" organised by SVNIT, Surat, 10-8-2020 to 14-8-2020.
- 19. FDP attended on Finite Element Analysis Practice and MATLAB, Online (Tonta Darya College of Engineering, Gadag, Karnataka, 13-17 July 2020.
- 20. Attended FDP on Purely the Fundamentals of Mechanical Engineering at Chennai Institute of Technology, Chennai from 01st to 05th June, 2020, Online.

Refresher Courses/ Workshops/ Webinars/ Seminars/Guest Lecture:

- 1. Webinar attended on A Practical Approach on Industry 4.0 & it's Implementation in Smart Factories 26 July 2020, Online.
- 2. Attended Webinar on Data Science Approach for Mechanical Engineers, at Department of Mechanical Engineering, Vignan Institute of Technology and Science, Deshmukhi on 04th June 2021.
- 3. Attended Webinar on Composite Applications in Space Applications and Collaborative Robotic Inspections at Arasu Engineering College, Kumbakonam on 04th June 2021.
- 4. Attended Webinar on Polymer Composites and its Applications, at Arasu Engineering College, Kumbakonam, on 28/05/2021.
- 5. Attended Webinar on Additive Manufacturing : Application, Challenges and Future Scope, at Vignan Institute of Technology and Science, Deshmukhi, on 22/05/2021.



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- 6. Attended Webinar on Surface Hardening Techniques for Alloy Steels at Arasu Engineering College, Kumbakonam, on 15/05/2021.
- 7. Attended Webinar on Role of Quality Assurance basics (Manual and Automation) at Meerut Institute of technology, Meerut on 01-11-2020.
- 8. Attended TEQIP -3 Sponsored, National Seminar Emerging Trends in Value added Materials and Applications (ETVMA-2020) at KEC Katihar, from 14-09-2020 to 19-9-2020.
- 9. Attended webinar on Advanced Pedagogy and Academic Skill for Future organized by, Startcore Technologies, 11th May, 2020, Online.
- 10. Attended webinar on Research Scopes in Composite Material organized by Chennai Institute of Technology, Chennai, 14th May 2020.
- 11. Attended webinar on Basics of Machining organized by Chennai Institute of Technology, Chennai, 15th May 2020, Online.
- 12. Attended webinar on Future Opportunities In Industrial Robotics & Industry 4.0 organized by AGIIT, Chennai, 16th May 2020, Onlie.
- 13. Attended webinar on Idea Generation using design thinking, organized by, Online, Lecture series from NPTEL, 16 May 2020, online.
- 14. Attended Webinar on Introduction to Structural Dynamics Simulations in ANSYS organized by, Channel Success ANSYS, Monday 6th April 2020 at 11:30 am, Online.
- 15. Attended webinar Intellectual Property Rights And Patenting organized by Startcore Technologies, 8th April 2020 Online.
- 16. Attended Two Days workshop AI for Corona Virus Analysis, organized by, EduxLabs India, 10th -11th April 2020, online.
- 17. Attended webinar on Enhance research visibility to improve ranking, organized by, Elsevier, 16th April 2020, Online.
- 18. Attended webinar on Use of additive manufacturing for Disaster Management, organized by lecture series from NPTEL, 18 April 2020, Online.
- 19. Participated in National Seminar on bamboo and its utilization, 27 Dec. 2019, at CBIT Hyderabad.
- 20. Participated in 3 day, EPICS workshop from 3rd-5th June 2019 at MLRIT Hyderabad.
- 21. Participated in AICTE sponsored short term course from 04th-08th April 2019, on Technological Advancement of Polymer Nanocomposites at IIT Kanpur.
- 22. Participated in 3 day, 3D printing workshop from 1st-3rd November 2017 at Aurora's Scientific Technological and Research Academy BY VIVID CADD, Hyderabad.
- 23. Participated in 3 day, Naturopathy workshop from 3ost 2nd October 2016 at Naturopathy and Yoga Center, IIT Kanpur.

Online Certifications:

1. NPTEL Course on Laser: Fundamentals and Applications, Sep- Nov 2020 (8



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- Weeks) with 91% marks.
- 2. NPTEL Course on Non-Conventional Energy Sources Jan-Apr 2020 (12 weeks) with 72% marks.
- 3. Coursera Course on Materials I: Fundamentals of Stress & Strain and Axial Loading June 2020
- 4. Coursera Course on Programming for Everybody (Getting Started with Python), June 2020
- 5. Coursera Course on Intelligent Machining, May 2020
- 6. NPTEL Course on Outcome Based Pedagogic Principles for effective Teaching, Aug-Sep, 2018 (4 Weeks) with 59% marks.
- 7. NPTEL Course on Theory and Practice of Non-Destructive Testing, Feb-Mar, 2018 (8 Weeks) with 79% marks.

Any Other Contribution:

- 1. On-line FDP's attended: 35+
- 2. On-line webinars attended: 15+
- 3. Invited talk on "MEMS technology and Applications" at Oriental Institute of Science & Technology, Bhopal, India, July 29, 2020.
- 4. Invited talk on "Structural and Ion Transport Properties of Lithium Metaphosphate based Glassy Electrolytes, and Poly(vinylidene fluoride-cohexafluoropropene) based Polymer Electrolytes for Lithium-ion Batteries" at International Conference on Nanotechnology for Better Living, 2019, ICNBL 2109, Indian Institute of Technology Kanpur, Kanpur, India, April 06-07, 2019
- 5. Invited talk on "Glassy and Polymeric Electrolytes For Solid State Lithium Ion Batteries" at AICTE sponsored short term course: Technological Advancement of Polymer Nanocomposites, Organized by Advanced Nanoengineering Materials Laboratory, Department of Mechanical Engineering and Materials Science Programme, Indian Institute of Technology Kanpur, Kanpur, India, April 04-08, 2019.
- 6. Invited talk on "Structural and Ion Transport Properties of Lithium Metaphosphate based Glassy Electrolytes, and Poly(vinylidene fluoride-cohexafluoropropene) based Polymer Electrolytes for Lithium-ion Batteries" at QIP short term course: Nanocomposites for Energy Conversion and Storage Applications with Special Reference to Carbon, Organized by Advanced Nanoengineering Materials Laboratory, Department of Mechanical Engineering and Materials Science Programme, Indian Institute of Technology Kanpur, Kanpur, India, January 02-06, 2017.
- 7. MHRD Fellowship 2011 -2016, for Ph.D. in IIT Kanpur.
- 8. MHRD Fellowship 2007 -2009, for M. Tech. in MNNIT Allahabad.



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