JITENDRA BHASKAR PhD (IITK) Professor Mechanical Engineering Department HBTU Kanpur-208002 9452006116, 9140824510 jbhaskar@hbtu.ac.in bhaskar48m@yahoo.com jbhaskar48m@yahoo.com jbhaskar@iitk.ac.in https://orcid.org/0000-0003-4323-9794 https://scholar.google.com/citations?user=pki-nI0AAAAJ Web of Science ResearcherID _ ABB-1639-2021



Dr. Jitendra Bhaskar

1. **Professional Education**:

UG: B.Tech in Mech. Engg. G.B. Pant Univ. of Agril & Tech Pantnagar 1998

PG:M E (CAD/CAM)M.N.R.Engg. College, Allahabad2001Ph DMechanical EngineeringIIT Kanpur2021

2. Employment Record (Govt. Services)

2003 - 2007 Assistant Professor (old scale Rs 8000-13500) at G. B. Pant University of Agriculture & Technology PANTNAGAR, Uttrakhand

- 2007 2010 Assistant Professor (Old scale Rs 12000-18300 & new PB-3) at HBTI Kanpur
- 2010-2021 Associate Professor (new PB-4) at HBTI Kanpur

Aug 2021 - continuing as **Professor** (Level 14) HBTU Kanpur

Administrative Experience & other assignments:

Registrar of HBTI (Sept 2009-April 2010),

Dy. Registrar (Admin. & Esttb.) of HBTU (February 02, 2017 - June 01, 2017)

Member selection committee at IIT, Kanpur & Rajasthan, Warden of hostels, NSS Programme officer, Member T&P cell, Officer Incharge Vehicle at HBTI Kanpur, P.G. Coordinator of Mechanical Engineering Department, World bank Procurement I/C (Phase 2), Member of SC/ST scholarship committee, Incharge of CAD laboratory of the Department, Officer Incharge Guest House Jan 2011.

Participation as Examiner/Question Paper setter

- a. PUBLIC SERVICE COMMISSIONs STATES: Uttar Pradesh, Uttrakhand and Madhya Pradesh.
- b. Kumaon Engg. College, Dawarhat (Almora), G.B.Pant Engg.College Pauri (Garhwal), MJP Rohilkhand Bareilly, Agra Unversity, UPTU Lucknow, Uttrakand Technical Unversity Dehradun, Indraprastha Unversity Delhi, BIET, Jhansi.

Member Professional body:

- a) Associate Life member (*LM-39235*) of *ISTE*
- b) Member of The Institution of Engineers (India)-M-163741-4

- c) Member of *Sakura Science Club* (**Japan**-Asia Youth Exchange program in Science)
- d) Skill India: Training of Trainer program for "PAINTS AND COATINGS SKILL COUNCIL" Technical sales representative QP code PCS/Q0102 and NSQF Level 5. Trainer ID provided by SSC:T-155. Platform Skills –Name QP code: Trainer and MEP/Q0102, ToT-Kanpur (Certificate Number PCS/Q0102/270917/T-155 (Sept 22-27, 2017)
- e) Member (Annual 2018-19)of Academic Society of Science and Technology established in Year 2006 (ASSET)-AM1809F14

Fellowship

Awarded **SAKURA fellowship** in Year 2019 by **Japan science and Technology** for attending Kyushu Institute of Technology, **JAPAN** during February 17-26, 2019.

MOU: *Played key role for MOU between HBTU and following organizations in Reverse Engineering and 3D Printing.*

- a) UPTTI Kanpur,
- b) KGMU Lucknow and
- c) G. B. Pant University of Agriculture & Technology Pantnagar, Udham Singh Nagar (Uttrakhand)

3. Teaching & Research Specialization:

Dynamics of Machine, Vibrations, Composites, Smart Materials & Structures, CAD/ CAM, Finite Element Method, Geometric modeling,

Courses Taught:

Under Graduate courses:

Kinematics of Machine, Dynamics of Machine, Machine Design, Machine drawing, CAD, CAM, Machine Drawing, Power Plant Engineering, Non-conventional Energy sources system, Mechanical system design, Thermodynamics, Theory of fluid flow etc.

Post Graduate Courses:

Finite Element Method, Geometric modeling, Computer graphics and Geometric modeling, Simulation modeling and Analysis, Fracture mechanics, Advance mechanics of solid.

4. PhD/ M.Tech.Theses supervised / Ongoing :

PhD:

- a) Himanshu Gupta (2021 –Part-Time) as Supervisor at HBTU
- b) Asheesh Kesarwani (2022–Part-Time) as Co-supervisor at HBTU
- c) Shyamsunder (2022-Part-Time) as Co-supervisor at HBTU
- d) Priya Gupta (2022-Part-Time) as Supervisor at HBTU

MTech:

- 1) *Meshfree analysis of elastic bar*" published in LAP Lambert Academic Publishing ISBN 978-3-8443-1294-2, Paperback, 92 Seiten by Jeetender Singh Kushwaha.
- 2) *Evaluation of Mechanical Properties of Wood Plastic Composite*" by Mr Shamsul Haq in 2010.

- 3) Failure Analysis of Ist stage Gas Turbine Blade by Mr Basant Lal in 2010.
- 4) Modelling of heel pad for shoes by Mr Kamran Rasheed in Year 2011.
- 5) Fabrication and Experimentation investigation of Mechanical properties of Bamboo fibre reinforced composite by Mr Habibur Rahman, Year 2013.
- 6) Fabrication and Experimentation investigation of Mechanical properties of Babool particulate composite by Mr S K Dohare in Year 2013.
- 7) Experimental Determination of Mechanical Properties of Recycled Tyre Rubber Particulate Composites by Mr Vipin Chaurasia Year 2014.
- 8) *Computer Aided Design, Fabrication and Analysis of Scaled Wind Turbine Blade* by Mr Prateek Kumar Gupta in Year 2015.
- 9) Dynamic Characterization of Coconut Particulate Composites by Mr Satyendra Kumar (731/13) in Year 2016.
- 10) Development and Characterization of Shape Memory Alloy Embedded Self-Healing Polymer composite by Mr Anurag Kumar Pandey (740/14) in Year 2016.
- 11) Dynamic Characterization of Shape Memory Alloy Embedded Passive Hybrid Polymer Composite by Rahul Bajpai (744/14) in year 2016.
- 12) Fabrication and characterization of Non-metallic wate material Reinforced polymer composite by **Pramod Kumar Pandey** <u>MANIT Bhopal 2016</u> Co-supervisor.
- 13) Machining of EN31 Hardened Steel uisng Minimum Quantity Lubrication to Improve Tool Life by Mr Jitendra Kumar Verma (708/15) in 2017.
- 14) Dynamic Characterization of Glass Fiber Based Hybrid Composite and Its Simulation by Mr Kushagra Singh (704/15) in year 2017.
- 15) *Experimental Study on Machining of EN24 using Minimum Quantity Lubrication*" by Mr Gaurav Tyagi in Year October 2018 Co-Supervisor J Bhaskar.
- 16) Development and Performance Analysis of FDM based 3D Printer by Mr Apoorv Srivastava (660454002) in Year October 2018.
- 17) Numerical & Experimental Study of Vibrational Behaviour of Glass and Carbon fiber reinforced Hybrid Composite by Mr Kamal Singh in Year October 2018.
- 18) Design & Development of Screw Extruder by Mr Asheesh Kesarwani on December 01, 2018.
- 19) Study of Composite Part Fabrication and repair in Aircraft Industry by Shyam Kishor (6504540025) on November 20, 2018.
- 20) Design and Fabrication of Topologically Optimized Structures by Urvashi verma 2019.
- 21) Design of Forward Moving Stair Climbing Wheelchair by Rishab Kant Dubey 2019 Co-supervisor.
- 22) Biomechanical Analysis of Varus Knee Osteoarthritis and Design and Analysis of Unloader Knee Brace Pratibha Sinha (Co-supervisor) 2019
- 23) Fabrication & Performance Analysis of Indirect Extruder based 3D Printer by Vipin Gupta 2019.
- 24) Simulation of Extension and Bending Behaviour of Piezoelectric Based Smart Beam by Vandana Prakash 2019.
- 25) Repair of Glass Fiber Composite Radome of Aircraft and Study of Its Mechanical Properties by Mr Rajendra Kr Maurya 2019 Co-supervisor.
- 26) Mechanical Characterization of Resistive Heat Cured CFRP Composites by Mr Raj Kumar 2019.
- 27) Design and analysis of Parabolic Reflector Antenna using Carbon Fiber Reinforced Polymer Composite by Iqra Absar 2019 Co-supervisor M.Tech Electronics.

- 28) Design, development and performance evaluation of ultra violet curing based 3D printer by Mr Pradeep Kumar Yadav in Year 2020.
- 29) Modelling and Analysis of knee joint using Reverse Engineering for Biomedical Applications by Mr Deepak Kumar in Year 2020.
- 30) Design and Performance evaluation of soft gripper for Robotics applications by Mr Ashutosh Singh in Year 2020
- 31) Experimental Investigation of Fused Deposition Modelling Parameters for Improved Printing on Fabrics by Arpit Singh in Year 2020. Co-supervisor.
- 32) Design and Analysis of dental implant submitted by Amita Maurya in 2021.
- 33) Dynamic FEM analysis of auxetic structure based cantilever beam by Abhishek in 2021.
- 34) Geometrical modelling of liver for Transplantation by Twinkle Dewanshi in year 2021.
- 35) Design and Analysis of 3D Printed Soft Actuator by Pranjul Pal in year 2021 (Cosupervisor).
- 36) *Modelling and Analysis of Auxetic structures for sports Equipments* by Ritul Vardhan in year 2021- (Co-supervisor).
- 37) *Design and Analysis of 3D Printed Orthopedic Cast for Forearm Rehabilitation* by Sushrut Richa in year 2021- (Co-supervisor).
- 38) Modelling and CFD Analysis of Hepatic Veins of Liver by Prabhat Aghnotri 2022.
- 39) Design and Analysis of 3D Printed Tooth Implant by Kanchan Lata Gautam 2022.
- 40) Modelling and Analysis of Implant for Hip by Ajeet Pal -- 2022 as Co-supervisor
- 41) *Modelling and Analysis of Implant for Cranioplasty* by Mohammad Zahid Khan 2022—as <u>Co-supervisor</u>.
- 42)) *Metal Wire Fusion Additive Manufacturing* by Sanjeev Kumar Verma (Part Time 2022) Supervisor.

5. Consultancy and Sponsored Research activities:

- 1. **2007-08** TEQIP, world bank "A development of cart mounted sugar cane crusher with high performance and Hygiene" **Rs 60000**/
- March 2010_ AICTE: "Investigation on Gas turbine blade failure" sanctioned in 2010 Ref.no.8023/BOR/RID/RPS-99/2009-10 dated March 31,2010 Amount Rs 3,50,000=00
- 3. **2015**_TEQIP-II "Shape Memory Alloy (SMA) wires embedded polymer composites: Fabrication& Characterization" Amount **Rs 90,000=00** (one Lac)
- 4. **2015**_TEQIP-II "Development of set-up for Fabrication of Metal Matrix Composites" Amount **Rs 1,00,000=00** (one Lac)
- 5. 2015_Feb 19-TEQIP-II "Study of Dynamic responses of Selected seasonal Fruits during the process of Ripening for better Transportation" Amount Rs 1,20,000=00.
- 6. **2016**_TEQIP-II "Development of fabrication facility for polymer composites" Amount **Rs 1,30,000=00.**
- 7. 2016_ TEQIP-II "Development of 3-D Printing machine" Amount Rs 1,00,000=00.
- 8. **2019**_TEQIP-III "Development of 3D Printer for Soft Robotics Applications" Amount **Rs 2,00,000=00** (2.0 Lac).
- 9. **2021_**"3D Generated markers for intra-operative planning of parenchymal transaction and middle hepatic vein reconstruction in living donor liver transplant" sponsored by DHR MRU at KGMU Lucknow (Dr Vivek Gupta) (Registration No.

ECR/262/Inst/UP/2013/RR-19 and sanctioned on vide 104/Ethics/2021 dated 02-02-2021) Amount= Rs 2.0 lac.

- 10. **2021**_ **submitted**_*3D* generated markers for intra-operative planning of bile duct identification in a case of post cholecystectomy complex benign biliary stricture-(Dr Vivek Gupta & others. Amount = **Rs 2.30 lac**.
- 2022_submitted_Design and Development of Artificial Intelligence Tool for management of Neurosurgical patients by Dr Pawan Kr Verma (SGPGI Lucknow) & others_Dr J Bhaskar, Dr Shyam Lal NIT Surathkal under ICMR new Delhi (Feb 2022)
- 12. **2022_submitted**_ *Development of prototype of Forward Staircase Climbing Smart wheel chair*, UPCST Lucknow Amount 14.07 lac (PI-J Bhaskar, Co-PI Dr Anand Kumar, Dr A.K.Rathore).
- 13. **2022_Submitted**_*3D* Generated markers for intra-operative planning of bile duct identification and repair in a case of post cholecystectomy complex benign biliary stricture. Submitted at KGMU Lucknow.

6. Reviewer of Journals:

- 1. Journal of Materials & Environmental Science ISSN 2028-2508 **IMF 0.452** year 2012 (**SCOUPS**)
- 2. Journal of Reinforced Plastic and Composite (SAGE) The American society for composites. IMF-0.9 2012
- 3. Journal of Thermoplastic Composite Materials (SAGE) The American society for composites.
- 4. Journal of Solid Mechanics (JSM) ISSN: 2008-3505 Iran.
- 5. European of Journal Wood and wood products published by Springer. ISSN: 0018-3768.
- 6. Journal of Naval Architecture and Marine Engineering- ISSN 20708998, 18138535 SCImago (15/08/2018).
- 7. Journal of Polymer Composite 2021
- Book Reviewed: Mechanical Vibration By Thammaiah Gowda, Jagadeesha T and D V Girish Publisher ISBN-13: 978-1-25-900617-3 Tata McGraw Hill Publisher Tata McGraw Hill

Book Proceeding Edited: "Innovation in Materials, Design & Manufacturing" published by Excel pvt. Ltd. New Delhi, 2015 ISBN 978-93-8469-47-2 (TEQIP=II sponsored)

Book Proceeding Edited: "Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods" published by Excel pvt. Ltd. New Delhi, 2017 (TEQIP=II sponsored)

- 8. Short-term Courses/Conference/Expert Lecture etc. organized.
 - a. A two day refresher course on "Composite Material: Potential & Challenges" during December 28-29, 2007.
 - b. **Faculty development programme** on "*Advances in Engineering Materials*" March 16-21, 2009.

- c. **National conference** on Innovation in Materials, Design & Manufacturing during March 27-28, 2015 at HBTI Kanpur.
- d. **Training** (TEQIP=II sponsored) on *"Reverse Engineering & Rapid Prototyping"* during January 5-7, 2017. Coordinator: Jitendra Bhaskar
- e. **Training** (TEQIP=II sponsored) on "*CAE of Vehicle Development*" during January 17-18, 2017. Coordinator : Jitendra Bhaskar
- f. **Expert Lecture** on "*Engineering Optimization*" by Dr Rituparna Dutta Post Doctorate Fellow, Korea Advanced Institute of Science and technology (KAIST) February 11, 2017.
- g. National Conference (TEQIP=II sponsored) on "Advances in chemistry for Sustainable Developments" during March 22-23, 2017 in collaboration of Chemistry and Mechanical Engg. Deptt. Convener: Dr C.L. Gahlot and Coordinator: Jitendra Bhaskar
- h. International Conference (TEQIP=II sponsored) on "Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods" during March 27-29, 2017. Dy. Coordinator: Jitendra Bhaskar.
- i. **Two-day Workshop** on *"Atomic Energy: Peaceful Uses and Job Opportunities"* in collaboration with HRDC at DTU Delhi and Nuclear Power Corporation of India Limited during September 6-7, 2021.
- j. International Conference –RAME-2022 (as Hosting partner ME Deptt HBTU Kanpur) organized by DTU Delhi during July 8-9, 2022. Capacity Co-convener.

9. Expert Lecture Delivered in seminar

- a) Delivered a lecture in a "*Prof. P.N. Tondon Memorial week-ends Lecture series* on "Modelling and Computing" during February 18 to March 18, 2012 organized by Department of Mathematics HBTI Kanpur.
- b) Invited Talk on "*FEM in Engineering Applications*" on 13/10/2014 at Mech Engg Deptt, G.B.Pant University of Agriculture and Technology, PANTNARGR.
- c) Invited Lecture on "An Introduction on Finite Element Methods" in TEQIP sponsored National conference (March 28, 2015) at HBTI Kanpur.
- d) Invited Lecture on Computer Aided design on 2015 at Indus college of Engineering, Billohur, Kanpur
- e) Invited Lecture on "*Smart Materials*" on April 13, 2016 at Ajay Kumar Garg Engg. College Ghaziabad, UP.
- f) Invited Lecture in FDP (April 25-29, 2016) on "*Finite Element Modelling*" held at MJPR University Bareillly on April 27, 2016.
- g) Invited Lecture on "Motivations for Mechanical Engineering undergraduate students" in Vision Institute of Technology, Kanpur on Feb 03, 2018.
- h) Delivered a expert lecture on "*Shape memory alloys and Shape memory polymers*" in FDP (April 30 to May 4, 2018) organized by Allen House Institute of Engg and Technology, Kanpur.
- i) Delivered a expert lecture on "*Smart Structures*" in FDP on May 05, 2018 organized by Allen House Institute of Engg and Technology.
- j) Delivered a Invited lecture on "*Smart Nano-Composites*" in FDP programme on December 19, 2018 (12-1 PM) at BIET Jhansi, UP.
- k) Delivered a Invited lecture on "*3D Printing of Smart Nano-Composites*" in FDP programme on December 19, 2018 (2-4 PM) at BIET Jhansi, UP.

- 1) Delivered a Invited lecture on "3D Printing Technologies: Micro to Large structure" in FDP programme on September 17, 2020 (3.15-4.15 PM) at NIT Bhopal, MP.
- m) PKG College of Engineering and Technology Panipat on 24 Feb 2021 "Reverse Engineering and 3D Printing for Medical applications.
- n) Delivered a lecture on :"Reverse Engineering and 3D Printing for Medical Applications" in FDP organized by DTU Delhi during July 5-9, 2021
- o) Delivered Lecture "Reverse Engineering and 3D Printing for Medical Applications" in specially organized by RAMA Kanpur December 16, 2021
- p) Delivered expert lecture on "3D Printing for Forensic Odontology", March 31, 2022 in 4th International conference on Forensic Odontology & Child Abuse" organized by KGMU Lucknow.

10. List of Research Paper Published

Book chapters published

- Srivastava A., Bhaskar J. (2020) Experimental Investigations of Printing Parameters of Fused Deposition Modeling-Based 3D Printers for Average Surface Roughness. (AIMTDR-2018 held at Anna University, Chennai during December 13-15, 2018, India) In: Shunmugam M., Kanthababu M. (eds) Advances in Additive Manufacturing and Joining. Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore. Print ISBN 978-981-32-9432-5 pp 527-538. https://doi.org/10.1007/978-981-32-9433-2 22
- 2 Tyagi G., Bhaskar J., Singhal S.K., Bartarya G. (2019) Experimental Study on Machining of EN24 Using Minimum Quantity Lubrication. (AIMTDR-2018 held at Anna University, Chennai during December 13-15, 2018, India) In: Shunmugam M., Kanthababu M. (eds) Advances in Forming, Machining and Automation. Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore (book series -LNMUINEN). Springer, Singapore. ISBN 978-981-32-9416-5, pp 527-538. https://doi.org/10.1007/978-981-32-9417-2 44.
- 3 Verma J.K., Bartarya G., Bhaskar J. (2019) Effect of Minimum Quantity Lubrication on Tool Wear and Surface Integrity During Hard Turning of EN31 Steel (AIMTDR-2018 held at Anna University, Chennai during December 13-15, 2018, India) In: Shunmugam M., Kanthababu M. (eds) Advances in Forming, Machining and Automation. Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore Print ISBN 978-981-32-9416-5 pp 205-218. <u>https://doi.org/10.1007/978-981-32-9417-2 16</u>.
- 4 Effect of infill percentage on vibration characteristic of 3D printed structure Pradeep umar Yadav and Jitendra Bhaskar (ICAPIE-2019) Lecture Notes Mechanical Engineering, edited by R M Singari in Advances in Manufacturing and Industrial Engineering, 978-981-15-8541-8, 493613_En, (Chapter 49 Page: 565-573) Published by Springer Nature. SCOPUS indexed. <u>http://www.springer.com/series/11236, https://doi.org/10.1007/978-981-15-8542-5</u>
- 5 *Design of 3D printed fabric for fashion and functional applications* Arpit Singh, Anand Kumar, **Jitendra Bhaskar** and Pradeep Kumar Yadav presented (ICAPIE-2019) Lecture Notes Mechanical Engineering, edited by R M Singari in Advances in

Manufacturing and Industrial Engineering, 978-981-15-8541-8, 493613_En, (Chapter 63 Page:729-735) Published by **Springer Nature. SCOPUS indexed.** http://www.springer.com/series/11236, https://doi.org/10.1007/978-981-15-8542-5

- 6 3D modelling of human joints using Reverse Engineering for biomedical applications Deepak Kumar, Jitendra Bhaskar, Pradeep Kumar Yadav and Abhisek (ICAPIE-2019) Lecture Notes Mechanical Engineering, edited by R M Singari in Advances in Manufacturing and Industrial Engineering, c, (Chapter 49, Page: 865-875) Published by Springer Nature. SCOPUS indexed. <u>http://www.springer.com/series/11236, https://doi.org/10.1007/978-981-15-8542-5,</u>
- 7 Static Structural Analysis of Auxetic Structures for Sports Protective Gears by Ritul Varrdhan, Jitendra Bhaskar and Anand Kumar Published in Springer Nature Singapore Pte Ltd. 2022 A. S. Abdul Sani et al. (eds.), Enabling Industry 4.0 through Advances in Manufacturing and Materials, Lecture Notes in Mechanical Engineering, (pg 531-541) https://doi.org/10.1007/978-981-19-2890-1_50 for LNME of Innovative Manufacturing Mechatronics Forum 2021 (iM3F-2021) on September 20, 2021 virtually hosted by Universiti Malaysia Pahang supported by Institution of Mechanical Engineers.
- 8 A Brief Study on Additively Manufactured Soft Pneumatic Actuators by Pranjul Pal, Bhaskar J, Anand Kumar AIP Conference Proceedings 2460, 080001 (2022); https://doi.org/10.1063/5.0095711 Published Online: 26 August 2022.

International Journal:

- "Evaluation and Testing of Mechanical properties of wood plastic composite" by Bhaskar J, Haq Shamsul and Yadaw S B in International Journal of thermoplastic composite materials Volume 25 No 4, June 2012 (The American society for composites) ISSN 0892-7057, <u>https://doi.org/10.1177/0892705711406158</u>. IMF-0.750 2012 (SCI), Q3.
- 2. Evaluation of properties of propylene-pine wood Plastic composite, by Jitendra Bhaskar, Shamsul Haq, A K Pandey and N Srivastava in Journal of Material & Environmental Science ISSN 2028-2508, 3(3) (2012) 605-612. http://www.jmaterenvironsci.com/Document/vol3/vol3_N3/60-JMES-176-2012-bhaskar.pdf IMF 0.45, (SCImago) Cross Ref
- Water Absorption and Compressive Properties of Coconut Shell Particle Reinforced-Epoxy Composite, by J Bhaskar and V K Singh in Journal of Materials & Environmental Science ISSN 2028-2508, 4(1) (2013) 113-118. (SCImago) Cross Ref. <u>15-JMES-325-2012-Bhaskar (jmaterenvironsci.com)</u>.
- 4. Physical and Mechanical Properties of Coconut Shell Particle Reinforced-Epoxy composite, by J Bhaskar and V K Singh in Journal of Materials & Environmental Science ISSN 2028-2508, 4(2) (2013) 227-232. IMF 0.45, (SCImago), Cross Ref. (14) (PDF) Physical and Mechanical Properties of Coconut Shell Particles Reinforced-Epoxy Composite (researchgate.net)
- Tensile and Flexural strengths of Coconut Shell particle & Coir fibre Reinforced Composite, by J Bhaskar and V K Singh in Journal of New Technology and Materials (JNTM) ISSN: 2170-161X, 03(01) (2013) 50-55. IMF 0.45 (web of science, Emerging Source Citation Index (ESCI) http://dx.doi.org/10.12816/0010280.

- Dynamic response of selected fruits using Laser Doppler Vibrometer (LDV) by J Bhaskar, Anand Kumar and Bishakh Bhattacharya, in Asia Pacific Journals (ISBN: 978-81930411-4-7) Vol-1, Issue-1. April 2015.
- Characterization of Non-metallic waste material reinforced polymer composites by R.K Diwedi, J Bhaskar, Pramod Pandey and Satyendra Kumar, published in Materials Today: Proceeding (Elsevier) 4(4):5361-5369, December 2017. https://doi.org/10.1016/j.matpr.2017.05.048. Scopus
- Effect of Coconut Shell Particles, Coir fiber and Husk Powder on Static & Dynamic Characteristic of Polymer Composites by Jitendra Bhaskar and Satyendra Kumar, published in IJAPIE International Journal of Advanced Production and Industrial Engineering IJAPIE-2019-01-134, Vol 4 (1), 19-24 (ISSN: 2455–8419) https://doi.org/10.35121/ijapie201901134.
- **9.** Static Response of Composite Induced by Piezoelectric Actuator Vandana Prakash and **Jitendra Bhaskar** published in Int J. of Engineering research in Mechanical and Civil Engineering (IJERMCE) vol 4, Issue 5, pp-27-30, May 2019 ISSN (online) 2456-1290 IFERP (https://doi.org/01.1617/vol6/iss5/pid96957.)
- **10.** Fabrication and Performance Analysis of Indirect Extruder based 3D Printer by Vipin Gupta and **Jitendra Bhaskar** published in Int J. of Engineering research in Mechanical and Civil Engineering (IJERMCE) vol 4, Issue 5, May 2019 ISSN (online) 2456-1290 IFERP.
- 11. Biomechanical Analysis of Varus Knee Osteoarthritis by Pratibha Sinha and Jitendra Bhaskar published in Int J. of Engineering research in Mechanical and Civil Engineering (IJERMCE) vol 4, Issue 5, pp-13-15, May 2019 ISSN (online) 2456-1290 IFERP <u>https://doi.org/01.1617/vol6/iss5/pid89365</u>.
- 12. Design of Tracked System for Stair Climbing by Rishabh Kant Dubey and Jitendra Bhaskar S.K. Singhal, Gaurav Kesari published in Int J. of Engineering research in Mechanical and Civil Engineering (IJERMCE) vol 4, Issue 5, pp-16-20 May 2019 ISSN (online) 2456-1290 IFERP.

www.technoarete.org/common_abstract/pdf/IJERMCE/v6/i5/Ext_87145.pdf

- 13. Numerical Simulation of Electrical Conductivity for Carbon Fiber Reinforced Polymer Composite by Himanshu Gupta, Anand Kumar and Jitendra Bhaskar published in Int J. of Engineering research in Mechanical and Civil Engineering (IJERMCE) vol 4, Issue 5, pp1-7 May 2019 ISSN (online) 2456-1290 IFERP . www.technoarete.org/common_abstract/pdf/IJERMCE/v6/i5/Ext_48730.pdf
- **14.** Design of Carbon Fiber Reinforced Polymer Based Parabolic Reflector by Iqra Khan, A K Shankhawar and **Jitendra Bhaskar** published in Int J. of Engineering research in Mechanical and Civil Engineering (IJERMCE) vol 4, Issue 5, pp8-12 May 2019 ISSN (online) 2456-1290 IFERP.
- 15. Static Analysis of Pure Epoxy Beam Induced by Piezoelectric Actuator by using Detailed Mode by Vandana Prakash, Jitendra Bhaskar and Kamal Singh published in Journal of Material Science and Mechanical Engineering (JMSME), Vol 6, Issue 3, June 2019, pp 206-211, ISSN: 2393-9095, e-ISSN: 2393-9109 (Krishi Sanskriti Pub.).
- 16. Topological Optimization of Simply Supported Beam for Fused Deposition Modelling Process by Urvashi Verma, Vipin Gupta and Jitendra Bhaskar

published in Journal of Material Science and Mechanical Engineering (JMSME), Vol 6, Issue 3, June 2019, pp 202-205, ISSN: 2393-9095, e-ISSN: 2393-9109 (Krishi Sanskriti Pub.). <u>Using Topology Optimization & FDM 3D Printing to Make</u> <u>a Simply Supported Beam - 3DPrint.com | The Voice of 3D Printing / Additive</u> <u>Manufacturing</u>

- 17. Analysis of Knee Adduction Moment and its Correlation with Compressive Stress in Knee Joint by Pratibha Sinha and Jitendra Bhaskar, published in Journal of Material Science and Mechanical Engineering, Vol 6, Issue 3, pp 195-197, pp-ISSN: 2393-9095, e-ISSN: 2393-9109 (Krishi Sanskriti Pub.). www.technoarete.org/common_abstract/pdf/IJERMCE/v6/i5/Ext_89365.pdf
- 18. Analysing the Effect of Polyactic Acid Plastic Using FDM Process through Vibration testing by Vipin Gupta, Urvashi Verma and Jitendra Bhaskar, published in Journal of Material Science and Mechanical Engineering, Vol 6, Issue 3, pp 178-182, `p-ISSN: 2393-9095, e-ISSN: 2393-9109 (Krishi Sanskriti Pub.). Microsoft Word - 39 Vipin Gupta 178- (krishisanskriti.org)
- **19.** Fabrication Constraints and Material Selection of Track Based Stair Climber by Rishab Dubey, **Jitendra Bhaskar** and S.K.Singhal published in Journal of Material Science and Mechanical Engineering, Vol 6, Issue 3, pp 198-201, pp-ISSN: 2393-9095, e-ISSN: 2393-9109 (Krishi Sanskriti Pub.).
- 20. Analysis of Electrical Conductivity for Carbon Fibre Reinforced Polymer Composites by Himanshu Gupta, Anand Kumar and Jitendra Bhaskar, published in Journal of Material Science and Mechanical Engineering (JMSME), Vol 6, Issue 3, June 2019, pp 218-223, ISSN: 2393-9095, e-ISSN: 2393-9109 (Krishi Sanskriti Pub.). www.technoarete.org/common_abstract/pdf/IJERMCE/v6/i5/Ext_48730.pdf
- **21.** Effect of curing pressure on electrical conductivity and vibration characterization of Analysis of Carbon Fibre Reinforced Polymer Composites by Kamal Singh Himanshu Gupta and **Jitendra Bhaskar** published in Journal of Advanced research in Electrical & Electronic Engg, Vol 6, Issue 2, pp 65-69, p-ISSN: 2349-5804, e-ISSN: 2349-5812.
- 22. Vibrational analysis of glass /carbon fiber reinforced hybrid laminated composite Kamal Singh, Naman Jain Jitendra Bhaskar; Journal of Theoretical and Applied Mechanics 50(3): 259-277 (Print ISSN 0861-6663, pg 259-277 online ISSN 1314-8710) SCIexpanded. Accepted for Issue 2/2020. Published July 2020. http://jtambg.eu/papers/2020/JTAM2020_3_259-277.pdf
- 23. A review on shape memory alloy reinforced polymer composite materials and structures by Bhaskar, Jitendra; Sharma, Arun; Bhattacharya, Bishakh; Adhikari Sondipan; Journal of Smart Materials and Structures, IOP publishing (9th April 2020 online, Published 02-June, 2020). <u>https://doi.org/10.1088/1361-665X/ab8836</u>.
- 24. A review on development of soft gripper using 4D printing by Ashutosh Singh, Ravi Butola and Jitendra Bhaskar; published in Journal –International Journal of Advanced Production and Industrial Engineering (JAPIE) -2020-07-348, July 2020, ISSN 2455-8419. <u>https://doi.org/10.35121/ijapie202007348</u>.
- **25.** Modelling and Simulation of bending behaviour of Thermoplastic Polyurethane based soft Gripper by Ashutosh Singh and J Bhaskar, **accepted** for publication in

International Journal of Advance Research and Innovation, Vol 8, issue 3 (IJARI – ME-20-09-114). <u>H&TECH (ijari.org)</u>

- 26. Design and development of Ultra-Violet curing based 3D printer by Pradeep Kr Yadav, Kamal Singh and Jitendra Bhaskar; published Journal –International Journal of Advanced Production and Industrial Engineering (JAPIE) -2020-07-343, July 2020, ISSN 2455-8419. <u>https://doi.org/10.35121/ijapie202007343</u>.
- 27. Surface performance analysis of in house developed Digital Light Processing based 3D Printer by Pradeep Kr Yadav and J Bhaskar, published in International Journal of Advance Research and Innovation, Vol 8, issue 4 (IJARI –ME-20-09-135). <u>H&TECH (ijari.org)</u>
- 28. Finite Element Simulations of various biomaterials based Knee Implants by Deepak Kumar and J Bhaskar, accepted for publication in International Journal of Advance Research and Innovation, Vol 8, issue 3 (IJARI –ME-20-09-134) 2020. <u>H&TECH (ijari.org)</u>
- **29.** *Review on Modelling of Knee Joint using medical imaging methods* by Deepak Kumar and Jitendra Bhaskar; accepted in Journal –International Journal of Advanced Production and Industrial Engineering (JAPIE) -2020-07-348, July 2020, ISSN 2455-8419.
- **30.** *Design of dielectric based Unimorph for enhanced bending* by Ashutosh Singh and Jitendra Bhaskar published in International Journal of Advance Research and Innovation, Vol 8, issue 3 (IJARI ME-20-09-120). <u>H&TECH (ijari.org)</u>
- **31. Patent application-No 202011024535A** on "*Origami Face Shield*" by Jitendra Bhaskar and Jyotika Singh published in Patent application publication INDIA Official Journal of Patent Office, Issue 32/2020 dated 07/08/2020.
- 32. Fabrication of FSW Tool Pins through Turning of H13 Tool Steel: A Comprehensive Analysis for Residual Stresses by Ravi Butola, Ravi Pratap Singh, Naman Choudhary, K.K.S. Mer, Jitendra Bhaskar and Ranganath M. Singari. published in Journal of Advanced Manufacturing Systems (JAMS). SCOPUS ESCI, Q3. https://doi.org/10.1142/S0219686722500135
- 33. 3D Generated Model for Intra-Operative Planning of Parenchymal Transection and Middle Hepatic Vein Reconstruction in Living Donor Liver Transplant by Vivek Gupta, Abhijit Chandra, Divya Mehrotra, , S Pratik Shah Anit Parihar, PradeepYadav, Jitendra Bhaskar, <u>Subhash Gupta</u>, in Journal of American College of Surgeons, Vol 233 Issue 5 supplement-2 November 2021 pp e192 <u>https://doi.org/10.1016/j.jamcollsurg.2021.08.517</u>. SCI impact factor 6.11
- **34.** Modelling and Dynamic Analysis of Auxetic Honeycomb Sandwich Structure using Finite Element method by Abhishek Kr and Jitendra Bhaskar in International research Journal of Engineering and technology (IRJET) Vol 8 issue 10 October 2021. <u>IRJET-V8110214.pdf</u>
- **35.** A Review on: 3D Printed Orthopaedic Cast for Improved Forearm Fracture Rehabilitation by Sushrut Richa, Jitendra Bhaskar, Anand Kumar published in International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; Volume 9 Issue XI Nov 2021- Available at www.ijraset.com.

https://issuu.com/ijraset/docs/a_review_on_3d_printed_orthopaedic_cast_for_improv

International Conferences:

- 1. Anand. Kumar and **J Bhaskar**, *Tribological Performance Evaluation of Tin-Bronze* as against Mild steel, ICRDME-2008, pp 400-404, SUSCET, Mohali, Punjab, Jan. 2008.
- 2. J Bhaskar, Anand. Kumar and Vinay Pratap Singh, *Non Uniform Rotational B-Splines (NURBS) for Object Modelling*, ICRDME 2008, pp 644, SUSCET, Mohali, Punjab, Jan 2008.
- 3. **J Bhaskar** and J Kushwaha, "Selection of dimensionless size of support domain in *EFG*" in ICAMB-2009 during December14-16, 2009 International conference held at VIT Vellore.
- 4. **J Bhaskar**, Anand Kumar and Bishakh Bhattacharya, "*Dynamic response of selected fruits using Laser Doppler Vibrometer* in Advancements & Recent innovations in Mechanical Production & Industrial Engineering organized at I.T.S Engineering College Noida on April 2015.
- 5. **J Bhaskar** & Basant Lal. "*Investigations on failures of 1st stage Gas Turbine balde*" in MRAEHEI 2015 organised by Jabalpur Management Association Jabalpur held Goa during October 26-27, 2015.
- Chaurasia V. K., Bhaskar J., Singhal S. K., ⁴Bhattacharya B. Structural and Dynamic Properties of Waste Tyre Rubber Composites published in proceeding at serial No 279 of International Conference COPEN⁹ at IIT BOMBAY December 10-12, 2015.
- 7. Kamal Kumar and **Jitendra Bhaskar** "*Review on Carbon Nano-fibers and its properties*" National conference on Advances in chemistry for Sustainable Developments ISBN: 978-93-86256-70-6, March 2017.
- Jitendra Bhaskar and Kushagra Singh "Experimental Study on the Vibrational Behaviour Of Hybridized Glass Fiber Reinforced Composites" presented in 3rd International conference on Advanced Production and Industrial Engineering (ICAPIE-18) October 5-6, 2018 organised by DTU Delhi.
- 9. Jitendra Bhaskar and Satyendra Kumar "Effect of Coconut Shell Particles, Coir Fiber and Husk Powder on Static & Dynamic Characteristic of Polymer Composite" presented in 3rd International conference on Advanced Production and Industrial Engineering (ICAPIE-18) October 5-6, 2018 organised by DTU Delhi.
- Ashees Kesarwani and Jitendra Bhaskar "Development of Low-Capacity and Low Cost Single Screw Extruder" presented in 3rd International conference on Advanced Production and Industrial Engineering (ICAPIE-18) October 5-6, 2018 organised by DTU Delhi.
- 11. Twinkle Devwanshi, Jitendra Bhaskar, Vivek Gupta. *3-Dimensional virtual and Physical modelling of hepatic veins for Liver transplantation* by **Accepted** for ICDM 2021 organised by DTU Delhi during December 26-27, 2021
- 12. Amita Maurya, J Bhaskar and Divya Mehrotra on *Finite Element analysis of Hybrid thread over dental implant* by. **Accepted** ICDM 2021 organised by NIT Delhi during December 26-27, 2021

National Conferences / Seminars:

- 1. J Bhaskar & V K Singh *Experimental investigation of mixed mode stress field parameters under biaxial loading condition*" Paper presented during National conference on Recent Advances in Mechanical Engineering at Noorul Islam College of Engineering, Tamilnadu.
- 2. J Bhaskar & V K Singh *NURBS for FEM*" published at National conference on Recent advances in Mechanical Engineering (October 27-28, 2006) at Sri Jayachmrajendra college of Engineering, Mysore.
- **3. J Bhaskar** and Anand. Kumar, *Non Uniform Rational B-Spline Curves for CAD*, STEM 2007, GBPUAT, Pantnagar, pp88-93, Oct, 2007
- **4. J Bhaskar** and J Kushwaha, *Importance of dimensionless size of support domain in EFG*" in ETME during October 12-13, 2009 National conference held at MMMEC, Gorakhpur.
- **5.** Published a research paper *Development in Wood Plastic Composite* in All India Seminar organized by Department of Mechanical Engineering HBTI Kanpur and Institution of Engineers-Kanpur Local Chapter during August 24-25, 2012.
- 6. N Srivastava, J Bhaskar, *Mechanical characterization of Walnut reinforced composite* published at National conference on challenges & opportunities for Technological Innovation in India (COTII-2013) at Ambalika Institute of Management & Technology, LUCKNOW during Feb 06, 2013.
- S K Dohre, J Bhaskar N Srivastava, "Low Grade wood flour composite" published in National conference on Technological developments in Mech. Engg. (TDME-2013) organized by SRMS College of Engg & Tech. Bareilly, UP on April 20, 2013.
- H Rahman, J Bhaskar N Srivastava, "Bamboo Fibre Reinforced composite" published in National conference on Technological developments in Mech. Engg. (TDME-2013) organized by SRMS College of Engg & Tech. Bareilly, UP on April 20, 2013.
- 9. J Bhaskar N Srivastava, "Particulate wood composite: Potential & challenges" published in National conference on Technological developments in Mech. Engg. (TDME-2013) organized by SRMS College of Engg & Tech. Bareilly, UP on April 20, 2013
- **10.** Jatin Prakash Naik and **Jitendra Bhaskar**, "*Shape memory alloys: Their applications and future scope*" published in proceeding of Innovation in Materials, Design & Manufacturing March 27-28, 2015 pp:26-33, ISBN : 978-93-8469-47-2.
- 11. Prateek K Gupta and Jitendra Bhaskar, "Design and development of scaled wind *turbine blade*" published in proceeding of Innovation in Materials, Design & Manufacturing March 27-28, 2015 pp:34-39, ISBN : 978-93-8469-47-2.
- **12.** V.K. Chaurasia, **Jitendra Bhaskar**, and S.K. Singhal "*Structural properties of waste tyre rubber composites*" published in proceeding of Innovation in Materials, Design & Manufacturing March 27-28, 2015 pp:154-160, ISBN : 978-93-8469-47-2.
- **13. J Bhaskar** & Bishakh Bhattacharya "*Dynamic response of active SMA embedded epoxy composites*" at 8th ISSS National Conference on MEMS, smart Materials, structures and systems held at IIT Kanpur on September 28-30, 2016.

- 14. J Bhaskar, K Dev, Ragini G, Vaishali S and Priyanka S. "Tensile Strength of active SMA embedded epoxy composites" at 8th ISSS National Conference on MEMS, smart Materials, structures and systems held at IIT Kanpur on September 28-30, 2016.
- **15.** Kushagra Singh and **J Bhaskar** "*Self healing Materials in Polymer Composite*" abstract published *in* National conference *on* Advances in chemistry for Sustainable Developments organized by HBTU Kanpur during March 22-23, 2017.
- 16. Satyendra Kumar and J Bhaskar "Fabrication and Development of waste corn fiber reinforcement composite" published in abstract published in National conference on Advances in chemistry for Sustainable Developments organized by HBTU Kanpur during March 22-23, 2017.
- 17. "*Topological optimization of cantilever beam for 3D printing*" by Urvashi Verma, Ashutosh Singh and Pradeep Yadav and **J Bhaskar** published in **seminar** proceeding on Reverse Engineering during August 24-25, 2019 organized by The Institutions of Engineers (India) Kanpur Local Centre in association with IIT Kanpur. AIS-2612-Vol-1.pdf (ieindia.org)
- 18. "Effect of 3D printing parameters on Dynamic properties of the structures" by Vipin Gupta, Apoorva Srivastava, Pradeep Kumar Yadav and J Bhaskar published in seminar proceeding on Reverse Engineering during August 24-25, 2019 organized by The Institutions of Engineers (India) Kanpur Local Centre in association with IIT Kanpur.

11. List Program of Training/FDP/Training/Courses Attended

- **1.** Participated in National Work Shop on "*Non-Destructive Testing*" held at PANTNAGAR on April 25 and 26, 2003.
- 2. Participated in AICTE sponsored Work Shop on "*Environmental and Pollution Awareness in Hilly Area*" conducted by Department of Civil Engineering on October 01, 2004 at PANTNAGAR.
- **3.** Participated in Short term training Programme on "*Advances in Digital Technology*" conducted by jointly Department of Computer Engineering & Electronics & Communication Engineering on April 6-26, 2004 at PANTNAGAR.
- **4.** Participated in Short term training Programme on "*CAD/CAM*" conducted by National Institute of Technical Teacher Training (Ministry of Human Resource Department, Govt. of India) on December 06-10,2004 at Chandigarh.
- **5.** Participated in Short term training Programme on "*Improving Industry Institute Interaction*" conducted by National Institute of Technical Teacher Training (Ministry of Human Resource Department, Govt. of India) during March 08-12,2004 at Chandigarh.
- **6.** Participated in Orientation Programme for *Programme officers of NSS* sponsored by the Ministry of Youth Affairs and Sports. Govt. of India from January 04-13,2005 at TOC Lucknow.

- 7. Participated in *Refresher course for Programme officers of NSS* sponsored by the Ministry of Youth Affairs and Sports. Govt. of India from December 26-30,2005 at GBPUAT Pantnagar organized by TOC Lucknow.
- 8. Participated in two day refresher course on *Advances in Materials & Material selection in design* organized by department of Mechanical Engineering at HBTI Kanpur during March 10-11, 2007.
- **9.** *"Transportation of Oil & Gas through pipelines"* during July 8-10,2009 organized by PETROFED at IIPM, Gurgaon.
- **10.** Short term course on "*Optimization techniques for Engineers*" at HBTI Kanpur funded by AICTE during March 23-24, 2009.
- **11.** Attended Short term course on "*Micro Scale Engineering*" at IIT Kanpur from Jan 03-08, 2011 organized by Dr P K Panigrahi, Mechanical Engineering Department.
- **12.** Short term course on "*Dynamics & Vibration*" at IIT Kanpur from June 30-July 03, 2014.
- **13.** Visiting Research Program-TEQIP (Winter) at IIT Kanpur from December 07-27, 2014.
- 14. Faculty Development Program at HBTI Kanpur March-07-12, 2014.

<u>2015</u>

- 15 *State level Faculty Interaction Seminar* under UP Govt. and TEQIP-II at HBTI Kanpur on June 8-9, 2015.
- 16 Visiting Research Program-TEQIP at IIT Kanpur June 2015.
- 17 All India seminar on *Advances in Engineering and Technology for Sustainable Development (AETSD-2015)* at GBPUAT Pantnagar (Session chair) June 12-13, 2015.
- 18 Short term course on *Micro-manufacturing* at IIT Kanpur on August 31-September 04, 2015.
- 19 International conference IC-*MRAEHEI-2015* organized by South Asia Management Association and Jabalpur Management Association held at GOA October 26-27, 2015.
- 20 National seminar on "*Low Cost Housing Models for Urban and Rural Areas of UP*" organized by Technical Education Department, Govt of UP and HBTI Kanpur during November 26, 2015.
- 21 International conference on "*Precesion, Meso, Micre and Nano Engineering*" (COPEN⁹) Organized by IIT Bombay December 10-12, 2015.

a. <u>2016</u>

- 22 Global Intiative for Academic Networks (GIAN) course on Pipe Inspection Robots for Structural Health Monitoring from Feb 27 to March 04, 2016. At IIT Kanpur.
- 23 National workshop on "*Outcome based Education and NBA accreditation*" sponsored by TEQIP-II organized by SPFU Lucknow and Engg. Staff college of India Hydrabad held at Lucknow on July 01-03, 2016.
- 24 Faculty Development Programme under TEQIP-II on Achieving Academic Excellence organized by **IIM Raipur** during July 25-30, 2016.

- 25 TEQIP-II sponsored workshop on "*Intellectual Property Rights (IPR) and Patenting*" organized by HBTU Kanpur and Engg. Staff college of India Hyderabad held at Kanpur on August 27-29, 2016.
- 26 National workshop on "*Occupational Health and Safety Management*" sponsored by TEQIP-II organized by HBTU Kanpur and Engg. Staff college of India Hydrabad held at Kanpur on October 03-05, 2016.
- 27 Participated in 8th ISSS National Conference on "*MEMS, smart Materials, structures and systems*" held at IIT Kanpur on September 28-30, 2016.

<u>2017</u>

- 28 TEQIP-II sponsored workshop on "*Energy Conservation and Energy Audit in Academic Institutions*" organized by HBTU Kanpur and Engg. Staff college of India Hyderabad held at Kanpur on March 07-09, 2017.
- 29 Skill India: Training of Trainer program for "PAINTS AND COATINGS SKILL COUNCIL" scored 80% in the domain job role Technical sales representative QP code PCS/Q0102 and NSQF Level 5. Trainer ID provided by SSC:T-155. Platform Skills – Name QP code: Trainer and MEP/Q0102, ToT-Kanpur (Certificate Number PCS/Q0102/270917/T-155

<u>2018</u>

- 30 TEQIP-III Sponsored Training workshop on "Academic Process for the *Implementation of Outcome Based Education (OBE)*" held during Feb 19-23, 2018 at HBTU Kanpur.
- 31 Summer Training Program on "*Active Learning for Senior Faculty*" from June 11 to June 15, 2018 at IIT Kanpur.
- 32 A workshop on "*NBA Accreditation –Criteria, Process & Execution*" on 11th & 12th September 2018 organized by State Project Implementation Unit (SPFU) Lucknow under TEQIP-III.
- 33 TEQIP-III funded FDP on "*Methods and Techniques for Enhanced Teaching and Learning in Technical Education*" during October 15-20, 2018 organized by Department of Chemical Engineering, School of Chemical Technology, HBTU Kanpur.
- 34 TEQIP-III *Materials Synthesis and Advanced Characterization Techniques* held during December 1-4, 2018, Department of Chemistry, HBTU Kanpur.
- 35 Bio-inspired robotics December 2018.

2019

36 Attended a "International Internship Activity in Minicar / Minirobot Manufacturing Comprehensive practicum" organized by Intelligent Robotics Education & Research Center, Car-Robo joint Graduate School, Kyushu Institute of Technology, JAPAN during February 17-26, 2019.

2020

- **37** Attended a "*Professional* Development Training" under TEQIP-III organized by *IIM Indore during February 14-20, 2020.*
- **38.** Attended online certification course on "*Digital Transformation in Teaching Learning process*" organized under TEQIP-III by IIT Bombay during March 16-30, 2020 powered by SWAYAM.

Date: 07/09/2022

Dr Jitendra Bhaskar