Dr. ASHISH DAS

Assistant Professor

Production and Industrial Engineering Department, NIT Jamshedpur

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ResearcherID: https://publons.com/researcher/2053975/ashish-das/

Scopus Author ID: https://www.scopus.com/authid/detail.uri?authorId=57195514624

ResearchGate: https://www.researchgate.net/profile/Ashish_Das11

Vidwan-ID: https://nitjsr.irins.org/profile/100484

BRIEF SNAPSHOT

- **Ph.D. (Mechanical Engineering Department)** from **MNNIT, Allahabad, India**
- **ME (Computer Aided Design)** from CSVTU, Bhilai, C.G, India
- **BE (Mechanical Engineering)** from Pt. RSSU, Raipur, C.G, India
- Working as **Assistant Professor** in NIT Jamshedpur, Jharkhand, India from **22/05/2018 to till date**
- Worked as **Assistant Professor** in KIIT University, Bhubaneswar, India from **19/06/2017 to 16/05/18**
- Worked as **Assistant Professor** in RCET, Bhilai, C.G, India from **31/07/2008 to 17/07/2013**
- Worked on **synthesis and characterization of bio ceramics coatings on metals** by **PLD, MS and LRM** for orthopedic implant applications

2017 **Ph.D.** (**Mechanical Engineering Department)** from **MNNIT, Allahabad,** India **(6.75) CPI**

2013 **ME (Computer Aided Design)** from CSVTU, Bhilai, C.G **(79%) HONOURS**

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2008 **BE (Mechanical Engineering)** from, Pt. RSSU, Raipur, C.G **(71.65%)**

2004 XII from**,** CGBSE, Raipur, C.G **(68.2%)**

2002 X from, CGBSE, Raipur, C.G **(77.6%)**

TEACHING EXPERIENCE

- **Assistant Professor** in NIT Jamshedpur (**Production and Industrial Engineering Department)**, Jharkhand, India from **22/05/2018 to till date**
- **Assistant Professor** (**School of Mechanical Engineering)** in KIIT University, Bhubaneswar, India from **19/06/2017 to 16/05/2018**
- **Assistant Professor** (**Mechanical Engineering Department)** in RCET, Bhilai, C.G, India from **31/07/2008 to 17/07/2013**

RESEARCH AREA AND TECHNICAL SKILL

- **Additive Manufacturing, Surface Engineering, Coating, Laser Processing, Biomaterials, Physical Vapor Deposition (PLD, MS), Friction Stir Welding/Processing, Metal Matrix Composites**
- **Pulsed Laser Deposition** system.
- **Magnetron Sputtering** system
- **Laser rapid manufacturing** system

- **Scanning electron microscopy**
- **X-ray Diffraction**
- **Fused Deposition Modelling** system
- **Fluorescence-activated cell sorting (FACS)**
- **Atomic force microscopy**
- **Ellipsometer**
- **Tensometer**
- **Vickers micro hardness tester**
- **In vitro bioactivity**
- **Friction Stir Welding**
- **Friction Stir Processing**

SCI JOURNAL PUBLICATIONS

1. **Ashish Das & Mukul Shukla**, Surface morphology, bioactivity, and antibacterial studies of pulsed laser deposited hydroxyapatite coatings on Stainless Steel 254 for orthopedic implant applications, Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, SAGE, **2016**, https://journals.sagepub.com/doi/full/10.1177/1464420716663029

2. **Ashish Das & Mukul Shukla**, Surface morphology and in vitro bioactivity of biocompatible hydroxyapatite coatings on medical grade S31254 steel by RF magnetron sputtering deposition**,** Transactions of the IMF, Taylor & Francis, **2017**, https://www.tandfonline.com/doi/full/10.1080/00202967.2017.1323675

3. **Ashish Das & Mukul Shukla**, Hydroxyapatite coatings on high nitrogen stainless steel by laser rapid manufacturing , JOM, Springer Nature, **2017**, https://link.springer.com/article/10.1007/s11837-017-2529-x

4. **Ashish Das & Mukul Shukla**, Pulsed laser-deposited hopeite coatings on titanium alloy for orthopaedic implant applications: surface characterization, antibacterial and bioactivity studies - Journal of the Brazilian Society of Mechanical Sciences and Engineering, Springer Nature, **2019**, https://link.springer.com/article/10.1007/s40430-019-1722-y

5. **Ashish Das & Mukul Shukla**, Surface Design Using Laser Rapid Manufacturing for Ti64-Hopeite Orthopedic Implants, Metals and Materials International, Springer Nature, **2020**, https://link.springer.com/article/10.1007/s12540-020-00646-4

6. **Ashish Das & Mukul Shukla**, New generation hopeite coating on Ti6Al4V (TC4) by radio frequency magnetron sputtering for prosthetic-orthopaedic implant applications: synthesis and characterization, Transactions of the IMF, Taylor & Francis, **2020**, https://www.tandfonline.com/doi/full/10.1080/00202967.2020.1724718

7. **Ashish Das & Mukul Shukla**, Multifunctional hydroxyapatite and hopeite coatings on SS254 by laser rapid manufacturing for improved osseointegration and antibacterial character: A comparative study, Journal of Engineering in Medicine, SAGE, **2020**, https://journals.sagepub.com/doi/full/10.1177/0954411920917851

8. **Ashish Das & Mukul Shukla**, Bioactive multifunctional hopeite coatings on new generation SS254 steel by laser rapid manufacturing for bone implant applications, Transactions of the IMF, Taylor & Francis, **2020**, https://www.tandfonline.com/doi/full/10.1080/00202967.2020.1777689

9. **Ashish Das & Mukul Shukla**, Multifunctional hopeite nanocoating on Ti64 substrates by pulsed laser deposition and radio frequency magnetron sputtering for orthopedic implant applications: A comparative study, Journal of Central South University, Springer Nature, **2020**, https://link.springer.com/article/10.1007/s11771-020-4441-8

10. Rishabh Swarnkar, Sohan Chaudhary, **Ashish Das**, Shashi Bhushan Prasad, Mukesh Kumar, Raj Ballav, Effects of Brass Interlayer on Mechanical Properties of Friction Stir Welded AA 6061-T6 Joint, Transactions of the Indian Institute of Metals, Springer Nature, **2021**, https://link.springer.com/article/10.1007/s12666-020-02156-8

SCOPUS INDEXED CONFERENCE PUBLICATIONS

1. Mukesh Kumar, **Ashish Das**, Raj Ballav, Influence of interlayer on microstructure and mechanical properties of friction stir welded dissimilar joints: A review, Materials Today: Proceedings, Elsevier, **2020**, https://www.sciencedirect.com/science/article/pii/S221478532031213X

2. Niraj Kumar, **Ashish Das**, Shashi Bhushan Prasad, An analysis of friction stir welding (FSW) of metal matrix composites (MMCs), Materials Today: Proceedings, Elsevier, **2020**, https://www.sciencedirect.com/science/article/pii/S2214785320313134

3. Niraj Kumar, **Ashish Das**, Ecofriendly energy efficient welding of aluminium matrix composites for aerospace applications: A state of art review, Materials Today: Proceedings, Elsevier, **2020**, https://www.sciencedirect.com/science/article/pii/S221478532031107X

4. Mukesh Kumar, **Ashish Das**, Raj Ballav, Influence of tool geometry on morphology and mechanical properties of friction stir welded dissimilar joints: A review, Materials Today: Proceedings, Elsevier, **2020**, https://www.sciencedirect.com/science/article/pii/S2214785320314553

5. Shambhu Kumar Manjhi, **Ashish Das**, Shashi Bhushan Prasad, Review on joining of aluminum alloy by solid-state welding technique, Materials Today: Proceedings, Elsevier, **2020**, https://www.sciencedirect.com/science/article/pii/S221478532031004X

6. Kundan Kumar, **Ashish Das**, Shashi Bhushan Prasad, Recent developments in biodegradable magnesium matrix composites for orthopaedic applications: A review based on biodegradability, mechanical and biocompatibility perspective, Materials Today: Proceedings, Elsevier, **2021**, https://www.sciencedirect.com/science/article/pii/S2214785320398187?via%3Dihub

7. Soumya Ranjan Sethi, **Ashish Das**, Mayuri Baruah, A review on friction stir welding: A sustainable way of manufacturing, Materials Today: Proceedings, Elsevier, **2021**, https://www.sciencedirect.com/science/article/pii/S2214785320403992

8. Y Abhiram, **Ashish Das**, Keshav Kumar Sharma, Green composites for structural and non-structural applications: A review, Materials Today: Proceedings, Elsevier, **2021**, https://www.sciencedirect.com/science/article/pii/S2214785320403955

SCOPUS INDEXED BOOK CHAPTERS

1. Niraj Kumar, **Ashish Das**, Lokesh Singh, Padmaja Tripathy, K Jayakrishna, Artificial Intelligence (A.I.) and Industry 4.0, Sustainable Manufacturing for Industry 4.0 An Augmented Approach, CRC Press Taylor & Francis, **2020**, https://www.taylorfrancis.com/books/sustainable-manufacturing-industry-4-0-jayakrishna-vimal-aravind-raj-asela-kulatunga-sultan-paulo-davim/e/10.1201/9780429466298

2. Shambhu Manjhi, **Ashish Das**, Shashi Bhushan Prasad, Lokesh Singh, Padmaja Tripathy, K Jayakrishna, Role of Machine Learning in Industry 4.0, Sustainable Manufacturing for Industry 4.0 An Augmented Approach, CRC Press Taylor & Francis, **2020**, https://www.taylorfrancis.com/books/sustainable-manufacturing-industry-4-0-jayakrishna-vimal-aravind-raj-asela-kulatunga-sultan-paulo-davim/e/10.1201/9780429466298

3. Lokesh Singh, Someh Kumar Dewangan, **Ashish Das**, K Jayakrishna, Networking for Industry 4.0, Sustainable Manufacturing for Industry 4.0 An Augmented Approach, CRC Press Taylor & Francis, **2020**, https://www.taylorfrancis.com/books/sustainable-manufacturing-industry-4-0-jayakrishna-vimal-aravind-raj-asela-kulatunga-sultan-paulo-davim/e/10.1201/9780429466298

4. Lokesh Singh, Someh Kumar Dewangan, **Ashish Das**, K Jayakrishna, Role of Industrial Internet of Things Manufacturing, Sustainable Manufacturing for Industry 4.0 An Augmented Approach, CRC Press Taylor & Francis, **2020**, https://www.taylorfrancis.com/books/sustainable-manufacturing-industry-4-0-jayakrishna-vimal-aravind-raj-asela-kulatunga-sultan-paulo-davim/e/10.1201/9780429466298

5. Lokesh Singh, Sushil Kumar Maurya, **Ashish Das**, K Jayakrishna, Software Development for Industry 4.0, Sustainable Manufacturing for Industry 4.0 An Augmented Approach, CRC Press Taylor & Francis, **2020**, https://www.taylorfrancis.com/books/sustainable-manufacturing-industry-4-0-jayakrishna-vimal-aravind-raj-asela-kulatunga-sultan-paulo-davim/e/10.1201/9780429466298

THESIS SUPERVISION

1. **PhD** Thesis Supervision- (Completed- 00, In progress- 03)
2. **MTech** Thesis Supervision- (Completed- 04, In progress- 01)
3. **BTech** Thesis Supervision- (Completed- 04, In progress- 01)

CONFERENCES/WORKSHOP/FDP/EXPERT LECTURES ORGANIZED

Nature of Event: Short Term Course (FDP)

Title: Materials, Manufacturing and Modeling -Advances and Constraints (MMMAC)
Date: from 20/05/19 to 25/05/19
Organized by: Department of Production and Industrial Engg., NIT Jamshedpur
Name of Experts Participated: Prof. Uday Shankar Dixit, Prof. Amaresh Kumar, Prof. M. K. Paswan, Dr. Swarup Bag, Dr. Suman Mishra, Dr. Mahadev Shome, Mr. Amlan Saha, Mr. Tushar Sharma.
Number of Participants/Attendees: 39
Name of Coordinators: Dr. Ashish Das, Dr. Mayuri Baruah, and Dr. Raj Ballav

OUTREACH ACTIVITY

Expert Lectures Delivered -

1. Title of the Lecture: Delivered an Expert Lecture in online mode on "Industrial Robotics", as a keynote speaker.
Details of Event: National Webinar on "Industrial Robotics"
Date: 29/09/20 to 03/10/20
University/Institute: Organized by the Department of Mechanical Engineering, Chaibasa Engineering College, Chaibasa, Jharkhand, Sponsored by TEQIP-III.

2. Title of the Lecture: Delivered an Expert Lecture in online mode on "Friction Stir Welding: A Sustainable way of Manufacturing", as a guest speaker.
Details of Event: FDP on "Recent Advances in Welding and Joining Technology" (RAWJT-2020)
Date: 12/09/20 to 16/09/20
University/Institute: Organized by Department of Mechanical Engineering, Veer Surendra Sai University of Technology Burla, Odisha, Sponsored by TEQIP-III.

3. Title of the Lecture: Delivered an Expert Lecture in online mode on "Additive Manufacturing in Biomedical Field", as a keynote speaker.
Details of Event: International Conference on "Future Engineering"
Date: 26/06/20 to 27/06/20
University/Institute: Jointly organized by Mazedan International Research Academy, Dr. RL Avadh University, Ayodhya & Dr. AIT Bangalore, Sponsored by TEQIP-III.

4. Title of the Lecture: Delivered an Expert Lecture in online mode on "Application of 3D Printing in Biomedical Field", as a guest speaker.
Details of Event: National Webinar
Date: 26/06/20
University/Institute: Organized by the Department of Mechanical Engineering, SECAB Institute of Engineering & Technology.

5. Title of the Lecture: Delivered an Expert Lecture in online mode on "3D Printing in Biomedical Field", as a guest speaker.
Details of Event: National Webinar
Date: 05/06/20 to 06/06/20
University/Institute: Organized by the Department of Mechanical Engineering, Dumka Engineering College, Dumka Jharkhand, Sponsored by TEQIP-III.

6. Title of the Lecture: Delivered an Expert Lecture in online mode on "3D Printing in Biomedical Field for Ongoing Pandemic Situation", as a guest speaker.
Details of Event: National Webinar
Date: 20/05/20
University/Institute: Organized by the Department of Mechanical Engineering, Hyderabad Institute of Technology and Management.

7. Title of the Lecture: Delivered an Expert Lecture on "Recent Development on Welding Process", as a keynote speaker.
Details of Event: One Day National Seminar.
Date: 14/09/19
University/Institute: Organized by the Department of Mechanical Engineering, Chaibasa Engineering College, Chaibasa, Jharkhand, Sponsored by TEQIP-III

COURSES LECTURED

Undergraduate Level

- Emerging Trends in Manufacturing Technology
- Micro-Electro-Mechanical Systems
- Advance Casting Technology
- Organizational Behavior & Industrial Psychology

Postgraduate Level

- Product Design & Development
- Manufacturing Systems

JOURNAL REVIEWER

- Journal of Engineering in Medicine (SAGE)

ADMINISTRATIVE RESPONSIBILITIES & EXPERIENCE

- **Associate Dean** (Industry & Alumni Relations, NIT JSR) from 01/10/2018 to 30/09/2020
- **Faculty Advisor** (P&IE 1st year UG students)
- **Laboratory Professor-In-Charge** (Metal Forming and CAD/CAM Laboratory P&IE Dept. NIT JSR)

GRANTS/FUNDED RESEARCH

- **Rs. 3.00 lacs from TEQIP-III** "Fabrication of Welded Joints using an Energy Efficient Green Technology for Automobile, Aerospace and Ship Applications", as Principal Investigator, 2019-20.

CITATIONS

- Google Scholar Citations – **65; h-index – 5; i10-index – 3**
- Scopus Citations – **35; h-index – 4**
- Research Gate Score – **11.94; Citations – 39; h-index – 4; %ile – 52.5**

PERSONAL DOSSIER

Date of Birth	:	11th October 1986
Permanent Address	:	Asha Niketan, House no. 657, Ward no. 21, Sindhiya Nagar, Durg, C.G
Languages Known	:	English and Hindi
Nationality/Religion	:	Indian/ Hindu
Father's Name	:	Mr. Vijay Singh Das
Mother's Name	:	Mrs. Shakuntala Das
Spouse Name	:	Mrs. Sarvshree Das
Marital Status	:	Married
Mailing Address	:	Production and Industrial Engineering Department, NIT Jamshedpur 831014, Jharkhand, India

DECLARATION

I hereby declare that all the information given above is true to best of my knowledge, I shall abide the rules and regulations of the organization.

Date: 15th Feb'2021 **(ASHISH DAS)**