

# **Anas Ahmad Siddiqui, Ph.D.**

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I am a smart working, result-oriented Assistant Professor proficient in research and teaching. The teaching-learning, research, office and other academic activities in which I was actively involved for the past years allow me to grasp strong teaching, research, administrative, organizational, communication, and interpersonal skills that enable me to execute any given responsibilities individually and as a part of a team in a timely and efficient way.

## **Professional and Technical Skills:**

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- Students Need Assessment, Reporting, and Guidance.
- Laser Material Processing.
- X-Ray Diffraction and Characterization of Thin Films.
- Wear and Erosion Testing.

## **Work Experience:**

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**11/2023 – Present**      **Assistant Professor: Foundry and Forge Technology Department**  
National Institute of Advance Manufacturing Technology Ranchi

**04/2023-10/2023**      **Assistant Professor: Mechanical Engineering Department**  
Sershash Engineering College, Sasaram.

Key Deliverables:

- Taught thermodynamics, workshop practice, courses to U.G. students.
- Workshop Incharge

**01/2018-04/2023**      **Assistant Professor: Mechanical Engineering Department**  
Institute of Engineering and Rural Technology, Prayagraj.

Key Deliverables:

- Taught thermodynamics, workshop practice, Non-destructive testing, and advanced welding courses to U.G. students.
- Setup Thermodynamics Lab.
- Office in charge of Thermodynamics Lab.
- Provided academic advising and tutorials to students.
- A member of the Proctorial Board.
- Prepared timely reports regarding the ongoing teaching and research projects.
- Prepared class timetable for the department and mentored orientation program for new students.

## Education:

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- 06/2015 – 11/2019**    **Ph.D.: Mechanical Engineering**  
Motilal Nehru National Institute of Technology Allahabad
- Thesis: Experimental and Numerical Study of Laser Surface Alloying of High Entropy Alloy.
- 07/2013 – 06/2015**    **Master of Technology: Material Science and Technology – 8.37**  
Maulana Azad National Institute of Technology Bhopal
- Thesis: Development of Ni-Al<sub>2</sub>O<sub>3</sub> composite coating and the effect of Plating Conditions on Microstructure and Tribological Properties.
- 07/2009 – 06/2013**    **Bachelor of Technology: Mechanical Engineering – 77.8%**  
Babu Banarasi Das National Institute of Technology and Management, Lucknow.
- 07/2007 – 05/2008**    **AISSCE: PCM - 76.2%**  
St. Vishna RRN School, Prayagraj.
- 07/2005 – 05/2006**    **AISSE – 76.6%**  
St. Vishna RRN School, Prayagraj.

## Publications:

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### A. Research Papers:

- 1) **A.A. Siddiqui**, A.K. Dubey, C.P. Paul, A study of metallurgy and erosion in laser surface alloying of Al<sub>x</sub>Cu<sub>0.5</sub>FeNiTi high entropy alloy, *Surface and Coatings Technology* 361 (2019) 27–34. <http://dx.doi.org/10.1016/j.surfcoat.2019.01.042>.
- 2) **A.A. Siddiqui**, A.K. Dubey, Study of Surface Properties in Laser Surface Alloying of Al<sub>x</sub>Cu<sub>0.5</sub>FeNiTi High Entropy Alloy, *Journal of Materials Engineering and Performance* 29 (2020) 6761–6773. <https://doi.org/10.1007/s11665-020-05194-x>.
- 3) **A.A. Siddiqui**, A.K. Dubey, Recent Trends in Laser Cladding and Surface Alloying, *Optics and Laser Technology*, 134 (2020) 106619. <https://doi.org/10.1016/j.optlastec.2020.106619>
- 4) **A.A. Siddiqui**, A.K. Dubey, C.P. Paul, Geometrical Characteristics in Laser Surface Alloying of a High-entropy Alloy, *Lasers in Engineering*, 43 (2019) 237–259.
- 5) **A.A. Siddiqui**, A.K. Dubey, Experimental and numerical study of laser surface alloying of Al<sub>x</sub>Cu<sub>0.5</sub>FeNiTi high entropy alloy, *International Journal of Computational Materials Science and Surface Engineering*, 9(3) (2020) 212–222. <https://doi.org/10.1504/IJCMSSE.2020.110427>
- 6) **A.A. Siddiqui**, A.K. Dubey, Modelling of Geometrical Properties in Laser Surface Alloyed Al<sub>x</sub>Cu<sub>0.5</sub>FeNiTi High-entropy Alloy (HEA), *Lasers in Engineering*, 49 (2021) 145–154.

7) **A.A. Siddiqui**, A.K. Dubey, Optimization of geometrical and mechanical characteristics in laser surface alloying, *Materials Today: Proceedings*, 44(1) (2021) 1108-1110. <https://doi.org/10.1016/j.matpr.2020.11.186>

8) **A.A. Siddiqui**, A.K. Dubey, Intelligent modeling of Dilution percent in Laser Surface Alloying of  $Al_xCu_{0.5}FeNiTi$  High Entropy Alloy, 4th International and 19th National Conference on Machines and Mechanisms (iNaCoMM-2019) 5-7 December, 2019.

9) **A.A. Siddiqui**, C.S. Kumar, Development of Ni- $Al_2O_3$  composite coating and the effect of plating modes on Microstructure and Tribological Properties, National Conference on Product Design and Manufacturing (NCPDM 2015)/MNNIT Allahabad/21-22 November, 2015, *Journal of Science and Technology*. ISSN: 0976–3074, 2015.

10) A.M. Tripathi, A.K. Dubey, **A.A. Siddiqui**, Thermal Analysis in Laser Surface Alloying of Ti6Al4V with TiC, 8th International Conference on Modeling Simulation and Applied Optimization (ICMSAO). <http://dx.doi.org/10.1109/ICMSAO.2019.8880429>.

11) U.K. Singh, A.K. Dubey, **A.A. Siddiqui**, Numerical Study of Weld Characteristics in laser welding of Ti6Al4V, International Conference on Advances in Materials and Manufacturing. ISBN: 978-93-86256-19-5, 2016.

12) G.K. Tiwari, A.K. Dubey, **A.A. Siddiqui**, A Hybrid Approach for Modelling and Optimization of Laser Cladding Process, International Journal of Advanced Production and Industrial Engineering, 5 (1), 17-24, 2020.

#### B. Books/Chapters:

1) **Anas Ahmad Siddiqui** and Avanish Kumar Dubey, Laser Surface Treatment, Engineering Steels, and High Entropy-Alloys, *IntechOpen*, ISBN:978-1-78985-948-5. <http://dx.doi.org/10.5772/intechopen.91800>

#### **Reviewer of Journals:**

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- Journal of Applied Physics, AIP Publishing
- Journal of Materials Processing Technology, Elsevier.

#### **Workshops and Courses Organized/Attended:**

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- Organized a Faculty Development Programme on ‘Some Recent Advances in Manufacturing Science and Technology’.
- Completed a 12-week certificate course by NPTEL on “X-Ray Crystallography and Diffraction” with Elite batch.
- Completed a 12-week certificate course by NPTEL on “Fundamentals of Surface Engineering: Mechanisms, Processes and Characterizations” with Elite batch.
- Advances in Materials and Manufacturing, 12-16 October 2018; MNNIT, Allahabad.
- Computational Methods in Engineering Applications, 12-16 April 2016; IIT, Kanpur.
- Thin Film Deposition, 24 October 2013; MANIT, Bhopal.

Key learning's:

- Manufacturing of gas cylinders.
- Coding of gas cylinders.

- **Diesel Locomotive Workshop, Lucknow, U.P.**

Key learning's:

- Overhauling of pumps.

**Areas of Interest:**

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- Laser Material Processing
- Advanced Materials
- Tribology of Advanced Materials

**Personal Profile:**

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D.O.B	09.04.1991
Sex	Male
Marital Status	Married

**Hobbies:**

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- I love to communicate and connect with others.
- Learning through reading and interacting.
- Occasional cooking with friends.

**Declaration:**

I hereby declare that the information published above is correct to the best of my knowledge.

**Place:**

**Date:**

**Signature**