

# RESUME

**DR. RAJAT UPADHYAYA**



## PERSONAL INFORMATION

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**Date of Birth:** July 9, 1983

## EDUCATION

- High school (C.B.S.E. Board) with 70.20% marks, from RLB Lucknow, year 1999.
- Intermediate (C.B.S.E. Board) with 74.60% marks, from RLB Lucknow, year 2001.
- B. Tech. (Mechanical) with 74.30% marks from Institute of Integral Technology, Lucknow year 2007.
- M.Tech -Foundry & Forge with 8.37 (CGPA) from **National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi (Formerly NIFFT, Ranchi)** Year 2011.
- PhD (Engineering) from **National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi (Formerly NIFFT, Ranchi)** year 2014- 2020.

## SUMMARY OF EXPERIENCE (3.0 YEAR)

**From Feb 2008 to Sept 2009 – ENGINEER (Production, Planning & Process Engineering cell).**

### COMPANY PROFILE:

Amtek India Limited (Manufacturing Plant) is an ISO-TS16949: 2002 & ISO 14000 Certified company and leading manufacturer of Automobile Components, assemblies & system. With state of the part manufacturing facilities across the country as well as in EUROPE & NORTH AMERICA. Casting to High Grade SG and Gray Iron casting for automotive application. The company is OEM to various automobile majors like Maruti Udyog Ltd., Escort, L&T JD, Eicher moter. , JCB, International Tractors Ltd., Suzuki motor, Perkins, GM, Hyundai, New Holland, etc.

### JOB PROFILE:

- Establishment of the entire process, system& new equipment's for related departments in project.
- Planning of items under development & follow up of execution process till completion.
- Production Planning, data generation & analysis, supply monitoring, Visual Display etc.
- Execution of Production plan as per monthlyplan.
- Schedulingthe maintenance activities during change – over to reduce the brake down during production.
- Implementation of 5S.

**From Aug 2007 to Jan 2008 – G.E.T (Process & Maintenance) in Rubber Roller Pvt. Ltd, Varanasi.**

**JOB PROFILE:**

- Ensured full and efficient use of resources and their proper allocation based on order priority.
- Searched new vendors for supplying raw materials and helped them in their growth in terms of quality and delivery of materials.

**COMPANY PROJECT COMPLETED**

**LEAN MANUFACTURING**

- Reduction of set-up time by at least 50% on each machine.
- Reduction of cycle time of each item by 10-20% from existing.
- Reduction of Manpower by 20 % ( From 100 to 80).
- Implemented the “FIFO” (First in First Out) system in our plant.

**TEACHING EXPERIENCE**

- I have an ability to analyze and interpret unique problems with a combination of project experience and logical thinking to find right solutions.
- I have good self-awareness, self-motivation as well as resilience and adaptability skill.
- Creative problem-solving and strong communication and interpersonal skills add extra benefit to complete my work in time.

**Experienced at National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi (Formerly NIFFT, Ranchi):**

- Teaching tutorials and labs of Casting design and Simulation lab, Sand testing lab, Composite lab, Foundry workshop, Material Testing, Computer Integrated Manufacturing, Catia/Engineering Labs includes Drafting Modeling Assembling and Manufacturing.
- Guiding and helping students for undergraduate final year projects in casting design and simulation of ferrous and non-ferrous materials.

**Experience at Maharishi University of Information Technology (MUIT), Lucknow (From 15th Feb 2018 to 30<sup>th</sup> May 2019) as Assistant Professor:**

- Course Teacher for the subject: (1) Material Science (2) Advanced Manufacturing Technology (3) Applied Thermodynamic (4) Production Planning and Control (5) Modelling & Simulation (6) Manufacturing Science-I (7) Manufacturing Science-II (8) Mechanical Engineering Laboratory-I (Lab) (Material Testing) (9) Work Shop (Lab)
- Faculty in-charge: M. Tech (All Departments)
- Labs and infrastructure development for the department
- Student Counseling

**Experience at Punjab Engineering College (PEC), Chandigarh (From 22<sup>nd</sup> Feb 2021 to 30<sup>th</sup> June 2021) as Assistant Professor:**

- Course Teacher for the subject: (1) Failure Analysis (2) Mechanical Behavior of Metals (3) Metal Casting Technology
- Member of B. Tech Major Project in the department.
- Member of UG & PG Curriculum Committee in the department.

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**PhD (Engineering)**

*“Synthesis and Characterization of Thin Wall Austempered Ductile Iron”*

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**LABS SUPERVISED**

Computer Integrated Manufacturing, Rapid prototyping, Casting design and Simulation Lab, Sand testing lab, Composite lab Foundry Workshop, Material Testing, Mechanical Workshop.

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**SOFTWARE SKILLS**

ANSYS, PROCAST, DEFORM, CATIA.

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**AWARDS/ACHIEVEMENTS**

- Aailed MHRD scholarship for PhD

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**WORKSHOPS**

- Attended, Workshop on "Patents and IPR" at Indian Institute of Technology, Patna.
- Attended, Workshop on "HPC" at Indian Institute of Technology, Patna.
- Attended, Workshop on "Lean Manufacturing" at Amtek India Limited, Bhiwadhi-Rajasthan.
- NX Designers Foundation on May 13, 2021.
- 3D Printing Additive Manufacturing on May 20, 2021.
- Industrial Robotics Foundation on May 28, 2021.
- Workshop on Implementation of NEP-2020 for Quality online and Open Distance Learning (ODL) Education.

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**PROFESSIONAL BODIES MEMBERSHIP**

- Member American Society for Testing of Materials (ASTM)-Membership No.-1637698
- Member International Association of Engineers (IAENG)-Membership No.- 303798
- Member Science and Engineering Institute (SCIEI)-Membership No.-20131226002
- Member of Shotokan Karate-do Federation of India Recognized by: Govt of India (Sports and Youth Affairs).
- Member of The Institution of Engineers(IEI)-AM173988-6

- Member of European Alliance for innovation (EAI)
- Member International Association of Engineers (IAENG) Society of Industrial Engineering
- Member International Association of Engineers (IAENG) Society of Mechanical Engineering
- Member International Association of Engineers (IAENG) Society of Operations Research
- Member of 'Blue Eyes Intelligence Engineering and Sciences Publication
- Member of 'Lattice Science Publication
- Member of WASET Scientific and Technical Committee of Mechanical and Industrial Engineering.
- Member of WASET Scientific and Technical Committee of Industrial and Manufacturing Engineering.
- Member of WASET Scientific and Technical Committee of Mechanical and Mechatronics Engineering.
- Member of WASET Scientific and Technical Committee of Mechanical and Materials Engineering.
- Member of WASET Scientific and Technical Committee of Materials and Metallurgical Engineering.

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#### **Other Activities**

- Successfully completed Mechanical Training Certificate Programme at NORTHERN RAILWAY CHARBAGH, Lucknow.
- H.E.C. Ranchi, June-July 2010 (Foundry and Forge plant).
- H.A.L. Lucknow, June-July 2006 (Assembly Department).
- C&W (Carriage and Wagon Workshop) Lucknow, June-July 2004 (Maintenance Department).
- Visited industrial tour to Govind Industries, Faizabad road, Safedabad

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#### **Projects Supervised**

- Diploma Projects: 7
- B. Tech Projects: 6
- M.Tech Projects: 2

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#### **Member of Peer Reviewer Journal**

- Editorial board member and reviewer 'Blue Eyes Intelligence Engineering and Sciences Publication
- Editorial board member and reviewer 'Lattice Science Publication.
- Editorial board member and reviewer Indian Journal of Production and Thermal Engineering (IJPTE)

- Editorial board member and reviewer WASET Scientific of Mechanical and Industrial Engineering.
- Editorial board member and reviewer WASET Scientific of Industrial and Manufacturing Engineering.
- Editorial board member and reviewer WASET Scientific of Mechanical and Mechatronics Engineering.
- Editorial board member and reviewer WASET Scientific of Mechanical and Materials Engineering.
- Editorial board member and reviewer WASET Scientific of Materials and Metallurgical Engineering.
- Editorial board member and reviewer Advances in Science, Technology and Engineering Systems Journal (ASTESJ).
- Editorial board member and reviewer Material Science Research India (An International Peer- Reviewed Journal).
- Editorial board member and reviewer International Journal of Research in Science & Engineering (IJRISE).
- Editorial board member and reviewer SCIREA Journal of Metallurgical Engineering.
- Editorial board member and reviewer International Journal of Engineering Applied Science and Management(IJEASM).
- Editorial board member and reviewer Journal of Emerging Technologies and Innovative Research.

## **PUBLICATIONS AND CONFERENCES**

1. Singh K.K., Upadhyaya R., Effect of section thickness and austempering variables on structure-property of thin wall austempered ductile iron, Indian Institute of Foundry – IIF TRANSTION 2012, March (2-4) (2012), Bangalore.
2. Upadhyaya R., Bontha S., Evolution of microstructure in beam-based solid free form fabrication, Research Scholar Day (RSD 2013), March 17, (2013), IIT Patna, India.
3. Upadhyaya R., Singh K.K , Effect of austempering variables on mechanical properties of austempered ductile iron, presented in International Symposium NMD-ATM in IIT-BHU, Varanasi (2013).
4. Upadhyaya R., Kumar R and Singh K.K, Recent Practices in Induction Melting, The 2014 Look East Conference Ranchi, March 9th 2014, organized by The Institute of Indian Foundry Men-Eastern Region and Ranchi Chapter in association with NIFFT, Ranchi.
5. Upadhyaya R., Singh K.K, Effect of inoculation on the structure-properties of thin wall ductile iron, presented in International Symposium NMD-ATM in IIT Kanpur, 2016.
6. Upadhyaya R., Singh K.K and Kumar R., Microstructure and Mechanical Properties of Thin Wall Ductile Iron, Journal of Automobile Engineering and Applications Vol 4, No 2(2017) 35–39p.
7. Upadhyaya R., Singh K.K, Effect of some inoculants on the structure and properties of thin wall ductile iron, Materials Today: Proceedings Volume 5, Issue 2, Part 1, 2018, Pages 3595-3601.
8. Upadhyaya R, Singh K.K., Kumar R. and Pathak H. , Effect of One Step In-Mould Inoculation Method on the Characterization of Thin Wall Ductile Iron, Int J Metall Met Phys Volume 3, Issue 2, 2–8p.
9. Upadhyaya R., Singh K.K and Kumar R., Study on The Effect of Austempering Temperature on the Structure-Properties of Thin Wall Austempered Ductile Iron, Materials Today: Proceedings Volume 5, Issue 5, Part 2, 2018, Pages 13472-13477.
10. Upadhyaya R., Singh K.K and Kumar R., Effect of Heat Treatment Parameters on the Characteristics of Thin Wall Austempered Ductile Iron Casting, Materials Science and Engineering 330 (2018) 012084.

11. Upadhyaya R., Singh K.K, Structure Property Correlation of Thin Wall Ductile Iron, Journal of Materials Science Research; Vol. 8, No. 1; 2019, 1–9p.
12. Singh K.K, Patrudu B. V. and Upadhyaya R., Identification and Control of Micro porosity for Al-Alloy Wheel Castings, International Journal of Engineering Research & Technology (IJERT), Vol. 3, Issue 5, May – 2014.
13. Singh K.K, Patrudu B. V. and Upadhyaya R., Axle Line Capacity up-gradation by Process Planning, International Journal of Engineering Research & Technology (IJERT) Vol. 3 Issue 8, August – 2014.
14. Gupta T.K., Upadhyaya R., Testing and Characterization of Silicon Carbide Reinforced Aluminum Matrix Composites, International Journal of Scientific Engineering and Research, Vol.7, Issue 6,2019, Pages 8-10.
15. Gupta T.K., Upadhyaya R., Fabrication and Characterization of Silicon Carbide Reinforced Aluminum Matrix Composites, International Journal of Science and Research, Vol.7, Issue 6,2019, Pages 8-10.
16. Mishra S., Upadhyaya R., Collaboration of Design and Manufacturing Web Service, International Journal of Science and Research, Vol.8, Issue 4, 2019, Pages 708-712.
17. Upadhyaya R., Singh B., Influence of Flat Friction Stir Spot Welding Process Parameters on Quality Characteristics of AA6082 Weld, Journal of University of Shanghai for Science and Technology, Vol. 23, Issue 4, April – 2021, Pages 123-128.
18. Upadhyaya R., Singh B., Fabrication and Mechanical Testing of Hybrid Fiber Polymer Composite Materials, International Research Journal of Engineering and Technology, Vol.8, Issue 4, April – 2021, Pages 1290-1296.

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## REFERENCES

### **Dr. Kamlesh Kumar Singh**

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### **Dr. Rajeev Kumar**

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## DECLARATIONS

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

*Rajat Upadhyaya*

**Dr. Rajat Upadhyaya**

