



Name: Dr. Rajiv Kumar Yadav

Designation: Assistant Professor & Head of Department

Department: Mechanical Engineering

Phone No(s): +91-8787055043, +91-9454885757

Email: rajiv.nitrkl@gmail.com, me@ashokainstitute.com,

Qualifications: PhD

Experience: 10 years

**Area of Interest: Manufacturing Technology, Metal Machining,
Additive Manufacturing, Optimization Techniques.**

Publication: 15

Book/Book Chapter: 2

Patent: Nil

Sponsored Projects: Nil

Consultancy: Nil

Resume

Dr. Rajiv Kumar Yadav

S/O Sri Bachchu Singh Yadav,

SA-10/65, M-15-F, Buddhanagar Colony, Ganj,

Sarnath, Varanasi-221007, U. P.

Contact: +91-8787055043, +91-9454885757 (U. P.);

Email: rajiv.nitrkl@gmail.com, me@ashokainstitute.com

Dear Sir/Madam,

I am submitting herewith my resume for your perusal and favorable consideration for the vacant post in your organization.

A systematic, organized, hardworking and dedicated team player with an analytical bent of mind with excellent academic credentials. I have total **10 years** teaching experience in Mechanical Engineering Department. At present time I am working at **Ashoka Institute of Technology and Management, Varanasi, Uttar Pradesh** as Head of Department (HOD) in Department of Mechanical Engineering. I also have **6 months** teaching experience at **Poornima College of Engineering, Jaipur, Rajasthan** and **1 year teaching experience in DPG I. T. M., Gurgaon, Haryana**. I have completed **PhD from Jadavpur University, Kolkata in 2023** and **M.Tech. in Mechanical Engineering (Production Engineering)** from **NIT, Rourkela, Odisha** in August 2014; currently, I am working as a **Head of Department** in **Ashoka Institute of Technology and Management, Varanasi, Uttar Pradesh**. I have **2, SCI** publications in “**Simulation Modelling Practice and Theory**” and “**Indian Journal of Engineering & Materials Sciences**” out of 10 published journals and 01 book chapter.

My basic objective is to hone in my skills for comprehensive personality development and be an epitome of trust and reliability in the corporate/academic world. My prime goal is to understand professional environment and capitalize on opportunities.

A hard working and talented individual having good functional management, coordination and communication skill, seeking a challenging job that would synergize my skills and knowledge with the objectives of the organization; A responsible, reliable and committed worker, give my best both as a part of a team and working independently.

The above credentials along with my enclosed resume make me ideally suitable for a position in your organization.

Thanking you for your consideration and forthcoming response.

Yours sincerely,

Dr. Rajiv Kumar Yadav

Dr. RAJIV KUMAR YADAV

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OBJECTIVE

To excel in the field of teaching and training with the help of providing consistently improved skills and updated knowledge and performing research activities in the field of Engineering and Technology.

EDUCATIONAL CREDENTIALS

Sr. No.	Degree/ Course	University/College	Specialization/Branch/Topic	Status
1.	Ph. D.	Jadavpur University, Kolkata, West Bengal	Mechanical Engineering (Topic: Machinability Assessment of Super Alloy Inconel 825 Using Coated Tools: An Experimental Investigation)	Awarded (Date of Award: 24 Dec 2023)
2.	M. Tech.	National Institute of Technology, Rourkela, Odisha (India)	Mechanical Engineering (Production Engineering) Thesis: An Experimental and Simulation Study on Parametric Analysis in Turning of Inconel 718 and GFRP Composite using Coated and Uncoated Tools	Passed (2014) 9.05 CGPA
3.	B.Tech.	Gautam Buddha Technical University, Lucknow, U. P.	Mechanical Engineering	Passed (2011) 1st Div.
4.	10+2 Intermed iate	Harish Chandra Inter College, Varanasi, (affiliated to U. P.	General Hindi, English, Mathematics, Physics, Chemistry	Passed 2004

		Board)		
5.	10 th High School	Harish Chandra Inter College, Varanasi, (affiliated to U. P. Board)	Hindi, English, Mathematics, Science, Social Science, Drawing	Passed 2001

TEACHING EXPERIENCE (Total Exp. 10years)

Sr. No.	Organization/ College/ University	Designation	Date		Subjects Taught	Total Time Period
			Joining	Completion		
1	DPG Institute of Technology and Management, Gurgaon, Haryana	Lecturer	01/July/2011	24/July/2012	Manufacturing Technology, Industrial Engineering, Fluid Mechanics	1 year
2	Poornima College of Engineering, Jaipur, Rajasthan	Assistant Professor	15/July/2014	23/July/2015	Manufacturing Technology, Industrial Engineering, Finite Element Analysis	1 year
3	Ashoka Institute of Technology and Management, Varanasi, U. P.	Assistant Professor & Head of Department	01/Aug/2015	Working	Manufacturing Processes, Fluid Mechanics, Manufacturing Technology, Theory of Machine	8 years 6 months

CONFERENCE/ FDP ORGANISED

Role: Convener

Description: One week Faculty Development Program (FDP) on ‘**Modern Optimization Techniques for Engineering and Scientific Applications**’ from **25 th June to 29 th June 2018**, organized by Department of Mechanical Engineering, Ashoka Institute of Technology and Management, Varanasi, Uttar Pradesh.

PUBLICATIONS / CONFERENCE/ BOOK CHAPTER

Publications

- **Rajiv Kumar Yadav**, Kumar Abhishek, Siba Sankar Mahapatra, A Simulation Approach for Estimating Flank wear and Material Removal Rate in Turning of Inconel 718, *Simulation Modelling Practice and Theory*. Vol. 52, 2015, pp. 1-14. (*SCI Journal*)
- **Rajiv Kumar Yadav**, Suman Chatterjee, Kumar Abhishek, Siba Sankar Mahapatra, Assessment of Machinability of Inconel 718: A Comparative Study of CVD and PVD coated tools, *Indian Journal of Engineering and Materials Sciences*, Vol. 26, October-December 2019, pp. 281-297. (*SCI Journal*)
- **Rajiv Kumar Yadav**, Anadh Gandhi, Kumar Abhishek, Siba Sankar Mahapatra, Goutam Nandi, Effect of Feed and Nose radius on various machinability criteria in dry machining of Inconel 825, *Materials Today: Proceedings*, Vol. 18 (2019), pp. 5231-5239. (*Scopus Journal*)
- **Rajiv Kumar Yadav**, Anadh Gandhi, Kumar Abhishek, Siba Sankar Mahapatra, Goutam Nandi, Machining Performance Optimization for Turning of Inconel 825: An integrated Optimization Route Combining Grey Relation Analysis with JAYA and TLBO, *International Journal of Innovative Technology and Exploring Engineering*, Volume-8 Issue-10, August 2019, pp. 1-7. (*Scopus Journal*)
- **Rajiv Kumar Yadav**, Kumar Abhishek, Siba Sankar Mahapatra, Goutam Nandi, A study on machinability aspects and parametric optimization of Inconel 825 using Rao1, Rao2, Rao3 approach, *Materials Today: Proceedings*, Vol. 47 (2021), pp. 2784-2789. (*Scopus Journal*)
- Suman Chatterjee, Kumar Abhishek, **Rajiv Kumar Yadav**, S.S. Mahapatra, Optimization of Drilling Process Parameters by Harmony Search Algorithm, *IEEE Xplore-Recent Advances and Innovations in Engineering (ICRAIE)*, DOI: 10.1109/ICRAIE.2014.6909278.
- Kumar Abhishek, Suman Chatterjee, **Rajiv Kumar Yadav**, Rajesh Kumar Verma, Saurav Datta, Siba Sankar Mahapatra and Pradip Kumar Pal, A Fuzzy-ICA Based Hybrid Approach for Parametric Appraisal in Machining (Turning) of GFRP Composites, *International Journal of Basic and Applied Science Research (IJBASR)*, Vol. 1(1) 2014, pp. 15-19.

- Suman Chatterjee, Kumar Abhishek, Siba Sankar Mahapatra, Saurav Datta, **Rajiv Kumar Yadav**, NSGA-II Approach of Optimization to Study the Effects of Drilling Parameters in AISI-304 Stainless Steel, *Procedia Engineering*, Vol. 97, 2014, pp. 78-84.
- Soni Kumari, Anshuman Kumar, **Rajiv Kumar Yadav**, K. Vivekananda, Optimisation of Machining Parameters using Grey Relation Analysis integrated with Harmony Search for Turning of AISI D2 Steel, *Materialstoday: Proceedings*, Vol. 5, Issue 5, 2018, pp. 12750-12756.

Accepted paper

- **9th International and 30th All India Manufacturing Technology Design & Research Conference AIMTDR-2023**
Title of Paper: Experimental investigation and hybrid metaheuristic optimization using ANN-MOJAYA on corner accuracy during WEDM for Ti-3Al-2.5V
Organized by: Department of Mechanical Engineering, IIT BHU, Varanasi, U. P.
Date: 08 Dec- 11 Dec 2023

Book Chapter

- Soni Kumari, Din Bandhu, Anshuman Kumar, **Rajiv Kumar Yadav**, K. Vivekananda, Application of Utility Function Approach Aggregated with Imperialist Competitive Algorithm for Optimization of Turning Parameters of AISI D2 Steel, *Recent Advances in Mechanical Infrastructure*, pp. 49-57.

Conference

- **4th Nirma University International Conference on Engineering, (NUiCONE-2013)**
Duration: 28th November to 30th November 2013.
Organized by: Nirma University Institute of Technology, Sarkhej, Ahemdabad, Gujarat.
Paper: Numerical Simulation and Parametric Optimization in turning of Inconel718.
- **9th ICMPC-2019**
Duration: 8th March to 10th March 2019.
Organized by: Gokaraju Rangaraju Institute of Engineering & Technology, Hyderabad, Telangana 500090.

Paper: Effect of Feed and Nose radius on various machinability criteria in dry machining of Inconel 825

- **Three Day International Conference on recent advances in mechanical Engineering, (ICRAME-2020)**

Duration: 26th to 28th February 2020.

Organized by: Andhra University College of Engineering, Department of Mechanical Engineering.

Paper: An Experimental investigation of dry turning of Inconel 718 using CVD coated tool.

- **3rd International Conference on Advance in Mechanical Engineering and Nanotechnology, (ICAMEN 2021)**

Duration: 18-19 March 2021.

Organized by: Manipal University, Jaipur, Rajasthan.

Paper: A study on machinability aspects and parametric optimization of inconel 825 using rao1, rao2, rao3 approach.

SHORT TERM TRAINING

- Training on **Advanced Engineering Optimization** through Intelligent Techniques (AEOTIT)

Duration: 23th September to 27th September 2013.

Organized by: Department of Mechanical Engineering, **Sardar Vallabhbhai National Institute of Technology, Surat-395007, Gujarat.**

- Introduction to Auto-CAD, 3D Modeling and Dynamic Analysis of Mechanical system for Condition Monitoring (MDMSCM)

Duration: 9th July to 12th July 2013.

Organized by: Department of Mechanical Engineering, **National Institute of Technology, Rourkela-769008, Odisha.**

- Design of Experiments: **An Optimization Tool** (DOEOT-2013)

Duration: 27th December to 29th December 2013.

Organized by: Department of Mechanical Engineering, **National Institute of Technology, Rourkela-769008, Odisha.**

- Design of Experiments: **An Optimization Tool** (DOEOT-2014)

Duration: 22th December to 25th December 2014.

Organized by: Department of Mechanical Engineering, **National Institute of Technology, Rourkela-769008, Odisha.**

- Multi-Objective Optimization Methods and Applications in Manufacturing (MOOMAM-2014)

Duration: 6th June to 8th June 2014.

Organized by: Department of Mechanical Engineering, **National Institute of Technology, Rourkela-769008, Odisha.**

PROJECTS / RESEARCHS

➤ **M.Tech Project for Research**

- **An Experimental and Simulation Study on Parametric Analysis in Turning of Inconel 718 and GFRP Composite using Coated and Uncoated Tools**

Description:

To study the effect of process parameters in turning of Super-alloy Inconel 718 and Glass Fiber Reinforced Plastic (GFRP) Composite using numerical method approach, and validate simulation results obtained for Super-alloy Inconel 718 and GFRP composite through experimental analysis using DEFORM 3D software. To study machinability of both Super-alloy Inconel 718 and GFRP composite using coated (PVD and CVD) and uncoated tools. And also determine optimal parameter setting using multi response optimization techniques. These are the following aim of this project,

- To make a DOE (design of experiment) using Minitab 16 for experimentation.
- To perform turning operation on **CNC lathe** and study the effect on output responses (surface roughness, material removal rate, flank wear etc.) due to variation in input parameters (depth of cut, spindle speed, feed rate).
- After obtaining experimental results we have used many optimization methods such as GA (genetic algorithm), NSGA-II, ICA, DEA, PSO etc for optimizing experimental results and find optimal setup.
- We have used MATLAB 2013 software for coding of these types of algorithms.
- To make a model of work piece (Inconel 718) using **CATIA V5R19** and then imported in **DEFORM 3D software** and performed turning simulation.

➤ **B. Tech. Project**

• **Driverless Car**

Description: It can detect any obstacle in front and side as well as it can also detect end of roads. In our car we have used two DC motors to drive it in forward, left and right direction and when required. We have used IR type proximity sensor for detection of obstacle and end of roads. The main part of our project is an ATMEGA make MCS51 family microcontroller.

PROJECTS GUIDED

1. **Topic:** An Experimental Study and Parametric Analysis on Turning of Mild Steel (AISI 403) using HSS and Carbide Tools.

Abstract: In this research determining cutting parameters like rake angle and feed that maximize material removal rate is a main task for achieving overall economy of machining. Statistical design of experiment refers to the process of planning the experimental so that the proper data can be analyzed by statistical methods, resulting in valid and reliable outcome.

Group Members: Vishal Singh, Sahani Akash, Himanshu Srivastav and Amit Gupta

2. **Topic:** An Experimental and Analytical Analysis of Turning of Super Alloy Inconel-718 Using Coated and Uncoated tools

Abstract: It was observed that while turning the Inconel-718 rod with Coated tool, surface finish improves with increasing feed up to some feed where from it starts deteriorating with further increase of feed. This type of behavior is not observed in turning with uncoated tool. Dimensional deviation is significant only in the case of turning of a slender work-piece. The preference of the grey relational analysis optimization method is good. The grey relational analysis have converted multi responses into single response i.e. grey relational coefficient and after that optimum value have to find out with the help of Taguchi. This study also emphasis the performance comparison between coated tool and uncoated tool.

Group Members: Kush Yadav, Manish Kumar Yadav, Abhishek Gupta, Ajay Kumar Jaiswal

INDUSTRIAL EXPOSURE

Industrial Training

Organization : Diesel Locomotive Works (Ministry Of Railway, India), Varanasi (U.P)

Duration : 12 June'09 to 25 June '09 (B.Tech-2nd Year) **2 weeks**

: 12 July'10 to 07 Aug'10 (B.Tech-3rd Year) **4 weeks**

- Understood the concepts behind the operation of Diesel Engine.
- Studied about the process involved in manufacturing of engine at DLW plant.
- Studied about the functions of different departments.
- Studied about the different machining process at CNC and VMC machines.

Industrial Visit

Nuclear Power Plant, Narora, Bulandshahar, (U.P.), Commercial operation of unit one began on 1st January, 1991. And unit 2 began commercial operation on July 1, 1992. Each unit capacity of 220 MWe.

OTHERS SKILLS

Software Skills

- I have worked on **Auto-CAD, CATIA V5R19, DEFORM 3D, MATLAB 2013 and Minitab 16.**

Interpersonal Skills

- Highly motivated Person having Leadership and management qualities.
- Can work effectively in team, as well as individually.
- Punctual and Disciplined, ability to deal with people diplomatically.

Co-Curriculum / Interest

- Active participant for quiz contests at school & college level.
- Managed various extracurricular activities efficiently.
- Participating in technical fests.
- Reading Newspapers & Magazines
- Listening to Bollywood songs.

PERSONAL DETAILS

Father's Name	Sri Bachchu Singh Yadav
Father's Occupation	Retired from Uttar Pradesh Police (SI)
Mother's Name	Smt. Shanti Devi
Mother's Occupation	House wife
Brothers and Sisters	I have two brothers and two sisters
Permanent Address	SA-10/65-M-15-F, Buddhanagar Colony, Ganj, Sarnath, Varanasi-221007, (U.P.), India
Date of Birth	10 th July 1986
Nationality	Indian
Marital Status	Married
Spouse's Name	Jyoti Yadav
Son's Name	Yatharth Jyotiraj
Languages Known	Hindi & English
Sex	Male
Religion	Hindu

References: Available on Request

Declaration

I hereby declare that information mentioned above is true to the best of my knowledge.

DATE:

PLACE:

Rajiv Kumar Yadav

Dr. RAJIV KUMAR YADAV