

Curriculum Vitae

Prof. Anand Mukut Tigga

Designation: Professor

Department of Production and Industrial Engineering

National Institute of Technology Jamshedpur,

Adityapur, Jamshedpur, Jharkhand, India. 831014

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Year of joining in institute: 04/03/1989



EDUCATIONAL QUALIFICATION

S.No.	Certificate / Degree	Discipline/ Specialization	Year of Passing	Board / Institute / University
1	Ph. D.	Production Engg.	2006	R.I.T. Jamshedpur (Ranchi University)
2	M. Sc. Engg.	Mechanical Engg. Dept., Specialization in Production Management	1993	R.I.T. Jamshedpur
3	B. Sc. Engg.	Mechanical	1984	R.I.T. Jamshedpur

AREA OF RESEARCH INTEREST

- Production Management.
- Production/Manufacturing Engg.
- CAD/CAM

DETAILS OF RESEARCH WORK DONE

Title of PG Thesis: Abrasive Water Jet Machining-An Experimental Study.

Title of Ph.D. Thesis: Extraction of Feature Information from Three Dimensional CAD data for Manufacturing Support.

EMPLOYMENT (EXPERIENCE) DETAILS

S. No.	Post	Scale of Pay	Duration		Total Experience	Employer	Nature of Employment - Temp. / Regular
			From	To			
1	Engineer	Rs.1100-1900	08.10.84	28.02.89	4 yrs, 5months	BHEL,N Delhi	Regular
2	Lecturer	Rs.2200-4000	04.03.89	24.03.96	7 yrs., 20Days	R.I.T. Jsr	Regular in Dept. of Mechanical Engg.
3	A.P.	Rs.12000-18300	25.03.96	19.9.06	9 yrs, 5months	N.I.T. Jsr	Regular in Dept. of Prod. Engg. & Management
4	Professor	Rs.37400-6700 Grade Pay Rs.10000	20.9.06	Continue	10 yrs	N.I.T. Jsr	Dept. of (Prod. Engg. & Management) Manufacturing Engg.

LINKS TO PUBLICATION WEBSITES

1. **ORCID:** <https://orcid.org/0000-0001-9260-4028>
2. **SCOPUS:** <https://www.scopus.com/authid/detail.uri?authorId=6504546840>
3. **WEB OF SCIENCE/ PUBLONS:** <https://publons.com/researcher/ABG-8314-2020/>
4. **GOOGLE SCHOLAR:** <https://scholar.google.com/citations?user=eHyT2I8AAAAJ&hl=en>

INTERNATIONAL JOURNALS

1. Pralay Pal, **A. M. Tigga**, A. Kumar, “Feature extraction from large CAD databases using genetic algorithm”. Computer-Aided Design, 37(2005), pp. 545-558 (UK).
2. Pralay Pal, **A. M. Tigga**, A. Kumar, “A strategy for machining interacting features using special reasoning”, International journals of machine tools and manufacture, 45(2005), pp. 269-278 (UK).
3. **A. M. Tigga**, Anjani Kumar and Sumit Nischol, “Best tool geometry of helical point drills for machining connecting rods, manufacturing technology and research an international journal, accepted (India).

Sr No.	Authors	Title of paper/Article	Journal Name	Indexing
1	Tonday H. R., Tigga A.M	Modeling and Characterization of Surface Integrity of Inconel 718 Specimens Machined by Wire Electrical Discharge Machining	Ciencia-e-Technica (ISSN: 0254-0223)	SCI E
2	Tonday H. R., Tigga A.M	Analysis of Effects of Cutting Parameters of Wire Electrical Discharge Machining on Material Removal Rate and Surface Integrity	IOP Conference Series: Materials Science and Engineering (ISSN: 1757-8981)	Scopus
3	Tonday H. R., Tigga A.M	Empirical assessment and modeling of MRR and surface roughness acquired from wire electrical discharge machining of Inconel 718	International Journal of Mechanical Engineering and Technology (ISSN 0976 – 6340)	Scopus
4	Tonday H. R., Tigga A.M	Experimental Investigation and Optimization of Process Parameters of Wire Electrical Discharge Machining Process in Cutting of Inconel 740 Alloys	Indian Journal of Science and Technology (ISSN : 0974-6846)	Thomson Reuteurs; Scopus
5	Tonday H. R., Tigga A.M	Modeling and Analysis of Wire Electrical Discharge Machining Parameters in Machining of Inconel 718	International Journal of Applied Engineering Research (ISSN 0973-4562)	Scopus

6	Tonday H. R., Tigga A.M	Evaluation of the Influence of Wire Electrical Discharge Machining Parameters on Material Removal Rate and Surface Characteristics in Cutting of Inconel 825 (accepted)	Materials Today (ISSN 2214-7853)	Scopus
7	Tonday H. R., Tigga A.M	An empirical evaluation and optimization of performance parameters of wire electrical discharge machining in cutting of Inconel 718	Measurement (Elsevier) 140 (2019) 185–19	SCI

NATIONAL JOURNALS

1. Pralay Pal, **A.M. Tigga** and Anjani Kumar, “feature based modeling techniques and concurrent engineering commercially available CAD software, Manufacturing Technology Today (A journal from central manufacturing Technology Institute, Tumkur road Bangalore-560022, India), Vol2, No-6, June 2003, pp 11-16 (it was presented in 20th AIMTDR 2004, India)

INTERNATIONAL CONFERENCES

1. **A. M. Tigga** & B. Kumar, “Abrasive water jet machining- A study” International conference on CAD, CAM & Robotics and autonomous factories (INCARF93), Vol.- III, pp 385-397, IIT New Delhi, December 16-19, 1993 (TMH, New Delhi)
2. Pralay Pal, **A.M. Tigga** and Anjani Kumar, “feature based modeling techniques and concurrent engineering commercially available CAD software for e-manufacture, IceM-2002, Maulana Azad National Institute of Technology, Bhopal, November 17-19, 2002, pp. 534-541.
3. Pralay Pal, **A.M. Tigga** and Anjani Kumar, “A concurrent engineering paradigm in sustainability perspective, International conference on Agile Manufacturing for cleaner products and sustainability- Internet solutions, Bangalore, 14-17 December, 2002 (Conference proceeding available in CD)
4. **A.M. Tigga**, Anjani Kumar & Pralay Pal, Feature extraction from discrete object data: an intelligent solution for better agile manufacturing, International conference on CAD, CAM & Robotics and autonomous factories, IIT, New Delhi, August 11-13, 2003 (Conference proceeding available in CD).
5. Pralay Pal, **A.M. Tigga** and Anjani Kumar, “Feature extraction from discrete object data in agile manufacturing approach” Manufacturing, BIT Mesra, Ranchi, August 18-20, 2005. (Conference proceeding available in CD).
6. **A.M. Tigga** and Anjani Kumar, “Machining characteristics of brittle materials with abrasive water jet an experimental study,” international conference on frontier design and manufacturing engineering (ICDM- ‘08), School of Mechanical sciences, Karunya University, Coimbatore, 01-02 February, 2008, pp. 144-149.

7. **A.M. Tigga** and Anjani Kumar, “significance of network design in supply chain management”, international conference on digital factory (ICDM-08), Coimbatore Institute of Technology Coimbatore, 11-13 August, 2008 (Conference proceeding available in CD).
8. Hulas Raj Tonday and **A. M. Tigga**,” Characterization of Surface Integrity of Ti6Al4V Alloy Machined by Using Wire Electrical Discharge Machining Process” 2nd International Conference on Emerging Materials: Characterization & Application (EMCA- 2017), NIT Durgapur, 15-17 March,2017,
<http://www.nitdgp.ac.in/emca2017/>

National Conferences/Seminar etc. (Published in Conference Proceeding)

1. Pralay Pal, **A.M. Tigga and** Anjani Kumar, “On feature based modeling techniques and concurrent engineering in commercially available CAD software, 20th All India Manufacturing Technology Design and Research Conference (20th AIMTDR), BIT Mesra, Ranchi, December 13-15, 2002, published in IT Based Manufacturing (Narosa Publishing House, 22 Daryganj, Delhi Medical Association road, New Delhi- 1102), pp 471-478.
2. Shree Vikash, **A.M. Tigga** and Anjani Kumar and Pralay Pal, “Value engineering analysis of conveyor system: a case study”, national conference on value engineering- a fast track to profit improvement and business excellence, BIT Mesra, Ranchi, July 26-27, 2003 (Conference proceeding available in CD).
3. Shree Vikash, **A.M. Tigga** and Anjani Kumar, “Value engineering analysis of liner plates in the chute of conveyor belts: a case study”, national conference on value engineering- a fast track to profit improvement and business excellence, BIT Mesra, Ranchi, July 26-27, 2003 (Conference proceeding available in CD).
4. Shree Vikash, **A.M. Tigga** and Anjani Kumar and Raj Ballaw, “Value engineering analysis of operation- maintenance of rail track (mining) a case study”, national conference on value engineering- a fast track to profit improvement and business excellence, BIT Mesra, Ranchi, July 26-27, 2003 (Conference proceeding available in CD).
5. Shree Vikash, **A.M. Tigga** and Anjani Kumar, “Value engineering analysis of crane wheels: a case study”, National conference on value engineering- a fast track to profit improvement and business excellence, BIT Mesra, Ranchi, July 26-27, 2003 (Conference proceeding available in CD).
6. Mudita Chandra, **A.M. Tigga &** Geeta Kumari, “Instructional objectives and domains in curriculum development”, National workshop on curriculum development for technical education, BIT Mesra, Ranchi, April 3-4, 2004 (Conference proceeding available in CD).
7. **A.M. Tigga**, Anjani Kumar & Sumeet Nishchol, “Best tool geometry of helical point drills for machining connecting rods, BIT Mesra, Ranchi December 9-10, 2006 (Conference proceeding available in CD).
8. **A.M. Tigga** and Anjani Kumar, “Clean and green manufacturing: world class eco-friendly products”, All India Seminar on eco-friendly Manufacturing, 22-23, September, 2007, BIT Mesra, Ranchi (Conference proceeding available in CD).

9. **A.M. Tigga**, Anjani Kumar & Mrs. Bina Lakra, “An engineering paradigm in sustainability perspective”, National workshop on cleaner production for sustainable development: status, challenges, opportunities and vision, 8-9 December, 2007, BIT Mesra, Ranchi (Conference proceeding available in CD).
10. **A.M. Tigga** and Mrs. Bina Lakra, “A paradigm of sustainability perspective in clean technology”, 23rd National conference of Environmental Engineers, National Seminar Environment Economics and Clean Technologies, (EECT-08), 12-13 January, 2008, MECON Limited, Ranchi, pp. 145-152.
11. **A.M. Tigga** and Anjani Kumar, “Clean technologies for sustainable development”, National workshop on technological challenges of 21st Century- the road ahead, 08-09 February, 2008, BIT Sindri, Dhanbad (Conference proceeding available in CD).

BOOK PUBLICATION

S. No.	Authors	Title of Book	Publisher Name	ISBN
1	Tonday H. R., Tigga A.M	Wire Electrical discharge Machining	LAMBERT Academic Publishing, Germany	978-3-330- 32464-0

M. Tech./ Ph.D. Supervision

Ph.D. Thesis Guided/Guiding:

S.No.	Name of candidate	Name of Supervisor	Topic of the thesis	Remarks
1	Subhash Chandra Mishra	I. Prof. U.C. Ray	Studies on nominal group technique and its application in a steel plant	Degree Awarded
		II. Prof. A.M. Tigga		
2	Kali Charan Rath	I. Dr. Amaresh Kumar	Aspect of curve & surface fitting through feature recognition by spline interpolation technique for CAD /CAM system	Degree Awarded
		II. Prof. A.M. Tigga		
3	Dal Govind Mahoto	I. Prof. Anjani Kumar	Improvements in product quality & productivity through lean manufacturing tools & techniques in engineering industry	Degree Awarded 2010
		II. Prof. A. M. Tigga		

4	Hulas Raj Tonday	Prof. A.M.Tigga	An Experimental Investigation and Optimization of Process Parameters of Wire EDM Process	Submitted & Final Viva-Voce was held on 29-7-2019
5	Divyanand Kumar	I. Prof. A.M. Tigga	Fabrication of Al based Functionally Graded Materials (FGMs) by Vibration Assisted Casting	Ongoing
		II. Dr. Dinesh Kumar		

M.Tech. Thesis Guided/Guiding:

Sl. No.	Name of candidate	Name of Supervisor	Topic of the thesis	Remarks
1	Shree Vikas	Dr. A. M. Tigga	Cost reduction through value Engg-case studies of material handling equipment	Completed 1998
2	Ravi chandra Singh	I. Dr. A. M. Tigga	Productivity improvement in forklift truck maintenance.	Completed 2001
		II. Dr. S. S. Mishra		
3	Sumit Nischol	Dr. A. M. Tigga	Best tool geometry of helical point drills for machining connecting rods.	Completed 2005
4	Shah Alam Khan	Dr. A. M. Tigga	Cost reduction and product improvement through value Engg. in Tata Diesel Vehicle.	Completed 2008
5	Md. Imroz Alam	Dr. A. M. Tigga	Modeling and analysis of tool wear, surface roughness	Completed 2014
6	Chandan Dutta	Dr. A. M. Tigga	Process variability detection using control chart	Completed 2015
7	Vikrant Kumar	Dr. A. M. Tigga	A case study of total quality management in cement Industry (MAHA Cement)	Completed 2015
8	Mayank Mishra	I. Prof. A M Tigga	Fabrication and Characterization of Multi-walled Carbon Nanotube Reinforced Magnesium Matrix Composite via Friction Stir Processing	Completed 2019
		II. Dr. Subash Singh		
9	Jaswant Sahu	Prof. A M Tigga	Topic not yet decide	Ongoing

SUMMER/ WINTER SCHOOL/SHORT TERM COURSES ATTENDED

Sl. No	Details	Details	Duration	
			From	To
1	Recent Advance In Power Generation From Non-Conventional Energy Sources Conducted by Dept. of Electrical Engg.	R.I.T. Jamshedpur	25.05.92	06.06.92
2	Industrial Tribology and Its Application Organized by Dept. of Mechanical Engg.	R.I.T. Jamshedpur	08.06.92	20.06.92
3	Non-Conventional Energy Sources and applications organized by mechanical engg. dept.	R.I.T. Jamshedpur	12.05.97	24.05.97
4	Applications of CAD/CAM & robotics in industries organized by the Dept. of Production engg. & Mgt.	R.I.T. Jamshedpur	03.06.92	15.06.92
5	Industrial productivity improvement through innovative techniques organized by Mech.	R.I.T. Jamshedpur	17.06.02	30.06.02
6	Metrology for engineering organized by Dept. of Physics	R.I.T. Jamshedpur	17.07.06	19.07.06
7	Leadership skills for excellence organized by M.D.I. Campus, Gurgaon	M.D.I. Gurgaon	27.02.06	04.03.06
8	Pedagogical training engineering education organized by ESCI Hyderabad	ESCI Hyderabad	13.10.08	25.10.08

ADMINISTRATIVE EXPERIENCE

S. No.	Nature of work	Period	
		From	To
1	B.Sc. Engg. 1 st	1993	1995
2	observer of B.C.C.E.B, Patna	1998	2000
3	departmental time table in-charge	1998	continue
4	metal cutting and forming lab in-charge	1998	2003
5	training and placement member from Production Engg. & Mgt.	1998	2003
6	Assistant warden hostel-D, NIT Jamshedpur	1989	1994
7	tabulator for non-formal B.Sc. Engg. Education for entrance.		
8	In charge of dept. Industrial visit & Industrial Training 1996 to 2003.	1996	2003
9	warden hostel-D, NIT Jamshedpur	1998	2001
10	Member of advisory-cum admission committee for technical training programmed in work Shop, NIT Jamshedpur	1996	1997
11	Professor in-charge N.S.S. Eco club, Social Welfare & blood Donation, NIT Jamshedpur, 1986 to 1998	1996	1998
12	Course Co-Ordinator for P.T.P.G. (Production Mgt. &	1996	1999

	Machine Design course), NIT Jamshedpur		
13	1 st coder for MCA admission	1999	-
14	Member, promotion Committee of class IV employees, NIT Jamshedpur	2002	-
15	Chairman operation and maintenance committee of the institute vehicles	2002	2005
16	Member of Dept. Administrative committee	2003	continue.
17	Member of MCA 2000, 2001 & 2002 batch Admission Committee, N.I.T. Jamshedpur	-	-
18	Tabulator for M.Sc. Engg (P.T.) 1998, 1999 & 2000 batch	-	-
19	Faculty advisor (tabulator) of 7 th & 8 th semester, Production & Industrial Dept.	2004	2006
20	Member of S.C.& S.T. employee standing Liaison committee of the N.I.T. Jamshedpur	2004	2006
21	Chairman, S.C. & S.T. students counseling committee of N.I.T. Jamshedpur	2004	2006
22	Expert for DRDO selection board for campus selection	2003	2004
23	Member of DAC (PG&R) committee, N.I.T. Jamshedpur	2006	continue
24	Coder for 2 nd semester B.Tech (Hons.) exam,	2006	
25	Member, branch change committee of B.Tech.(Hons.) 2004 & 2005batch	-	-
26	Project evaluation board, chairman, Production & Industrial Engg. Dept, N.I.T. Jamshedpur	2004	2008
27	Member of roster of committee, N.I.T. Jamshedpur	2001	2005
28	Expert for National Metallurgical Lab Jamshedpur	1999	2006
29	Expert for J.P.S.C, Ranchi 2006, 2007	-	-
30	Dy. Centre superintendent for AIEEE- 2006 & 2007.	-	-
31	Compassionate appointment committee chairman, N.I.T. Jamshedpur	2005	continue
32	Language lab, committee chairman, N.I.T. Jamshedpur	2006	continue
33	Member UG Admission Committee, NIT Jamshedpur 1995 to 1997, 1999, 2004, 2005, 2006, 2007.	-	-
34	D.S.C. chairman Production & Industrial Engg. Dept.	2006	2013
35	Professor-in charge examination, NIT Jamshedpur,	12.5.2008	12.5.2013

36	Head of Production & Industrial Engg,	12.5.2008	12.5.2013
37	Member of furniture purchase committee, N.I.T. Jamshedpur, 2008	-	-
38	Dean (Industrial & Alumni Relations) NIT Jamshedpur	2012	2013
39	Dean (Administration and faculty Welfare) NIT Jamshedpur	2013	2018
40	Member of HRA Committee of NIT Jamshedpur		
41	Member of Finance Committee of NIT Jamshedpur	2012	2017
42	Member of Board of Governor of NIT Jamshedpur	2012	2017
43	Chairman of the Institute Land Demarcation Committee of NIT Jamshedpur	-	-
44	Chairman of the Campus Safety and Security Committee of NIT Jamshedpur	2015	continue
45	Chairman of the Sub-letting Committee of NIT Jamshedpur	2015	2018
46	Chairman of the Enquiry Committee of the missing file, bearing No. NIT/ PD/01/2013, Pertaining to deposit of fund to CPWD NIT Jamshedpur	-	-
47	Chairman of ACoFAR (Advisory Committee of Faculty Recruitment)	2012	2017
48	ACoNFAR (Advisory Committee of Non-Faculty Recruitment)	2012	continue
49	Chairman of the Selection Committee of NIT Jamshedpur	2012	continue
50	Chairman of the House Allotment Committee of NIT Jamshedpur	2014	2016
51	Chairman of the Grievance Redressal Committee of NIT Jamshedpur	2014	2016
52	Member of the Standing Institute Disciplinary Committee of NIT Jamshedpur 2012 to continue		
53	Member of the Cleanliness, Sanitation & Waste Management Committee of NIT Jamshedpur	2015	continue
54	Member of the Space Allocation and Restructuring Committee of NIT Jamshedpur	2015	continue
55	Member of the Committee for Campus Retail Services of NIT Jamshedpur	2015	continue
56	Chairman of the Screening Committee for International travel support (Financial Support) under CPDA of NIT Jamshedpur	2014	2016
57	Member of the Civil Works Committee of NIT Jamshedpur	2012	continue
58	Member of the Electrical Works Committee of NIT	2015	continue

	Jamshedpur		
59	Member of the Senate of NIT Jamshedpur	2008	continue
60	Member of the Building Works Committee of NIT Jamshedpur	2015	continue
61	Member of the Engineering Services Committee of NIT Jamshedpur	2015	continue
62	Member of the Triple Benefit Scheme (TBS) Committee of NIT Jamshedpur who retired between	06.09.19 91	01/04/199 2
63	Member of the e-Governance and Good Governance Committee of NIT Jamshedpur	2015	2017
64	Chairman of the Investment Committee of NIT Jamshedpur	2014	2016
65	Member of the Budget Allocation Committee of NIT Jamshedpur	2015	continue
66	Chairman of central equipment major purchase committee (CEMPC) of NIT Jamshedpur	2018	continue
67	Prof. in charge librarian from 2019	2019	continue
68	Chairman of house rent allowance and house allotment committee.	2017	continue
69	Member of the Departmental promotion committee of group D	2019	continue
70	Member of the reservation & welfare cell	2019	continue
71	Chairman of SC/ST cell	5 th July 2019	continue
72	Institute Coordinator for conducting the activities of GIAN programme	2017	2018
73	Member of Internal Complaints Committee (ICC), NIT Jamshedpur	01.10.20 17	continue

PERSONAL INFORMATION

Date of Birth:

Nationality: Indian

Gender: Male

Permanent Address: **Anand Mukut Tigga**
Flat No. 206, M. P. Tower, Phase –II,
Tata Kandra Main Road, P.O. – Adityapur,
Dist.- Sarikella - Kharswan, Jharkhand,
India. 831013

Mailing Address: **Anand Mukut Tigga**
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Adityapur, Jamshedpur, Jharkhand, India. 831014

Phone: 09835381340

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

Dated: 12/01/2021

(Anand Mukut Tigga)