

Profile of Dr. K. B. Judal

Name and Address: Dr. K. B. Judal <i>Principal,</i> Government Engineering College Dahod, Zalod Road, Dahod, Gujarat, India. E-mail: principal@gecdahod.ac.in gec-dahod-dte@gujarat.gov.in		Email: (Personal) judalkb@gmail.com kbj@gecpalanpur.ac.in Phone: +91-02742-220005 (O) +91-9375844848 (Mobile)
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Public URL: <http://scholar.google.co.in/citations?user=zHGtVCMAAAAJ>

- A. Name** : Dr. Kesarabhai Bhikhabhai Judal
B. Designation : Principal, Government Engineering College Dahod
C. Age : 47 years
D. Education & Experience : Ph.D.,

15 Years Teaching and Research Experience

09 Years of Academic Administration

(i) Educational Qualifications :

Degree	Discipline	Div	Year	Institute/College (University)
Ph.D.	Mechanical Engineering	-	2013	Motilal Nehru National Institute of Technology, Allahabad, India
M. E.	Mechanical Engineering (CAD/CAM)	First	2002	L.D. College of Engineering, Ahmedabad (Gujarat) (Gujarat University)
B. E.	Mechanical Engineering	First-Dist	2000	L.E. College, Morbi (Gujarat) (Saurashtra University)

GATE-2004 Qualified All India Rank: 906

Outline of the Self Ph. D. Work

Dr. K. B. Judal was involved in a Full-Time Research Programme in the Mechanical Engineering Department under QIP at Motilal Nehru National Institute of Technology Allahabad, Uttar Pradesh, India, leading to the Ph.D. Thesis on '*Some Investigations on Cylindrical Electrochemical Magnetic Abrasive Machining Process*'. The research is concerned with application of advanced abrasion based hybrid machining process for efficient finishing of difficult-to-machine materials. In order to meet the increasing demand of modern industries involved in manufacturing of high function components made up of difficult-to-

machine materials, a process should be developed with a capability to generate a nano-level surface finish within short time. Cylindrical Electrochemical Magnetic Abrasive Machining is such advanced abrasion based hybrid machining process, which satisfy the demand of modern manufacturing industries. An indigenous setup for C-EMAM process has been developed and mounted as an attachment on precision lathe for high efficiency machining of cylindrical jobs. Experiments were conducted to explore the performance of the process during machining of both non-magnetic stainless steel (AISI-304) and magnetic stainless steel (AISI-420) using unbonded magnetic abrasives. The effect of various process parameters viz. workpiece rotational speed, current to the electromagnet, electrolytic current and frequency of vibration on material removal and surface roughness were investigated by following the one parameter at a time experimental approach. In order to study the simultaneous effect of various process parameters during C-EMAM process, RSM based second-order mathematical models correlating the material removal and surface roughness with workpiece rotational speed, current to electromagnet, electrolytic current and frequency of vibration have been developed for both non-magnetic and magnetic stainless steel. Further to expand the scientific and technical knowledge of the C-EMAM process, FEM based simulation model has been developed. The research work yielded the following:

- a. Paper published in Peer Reviewed Journals : **Seven**
- b. Papers presented/published in Conferences : **Four**

(ii) Experience:

POSITION	INSTITUTE	NATURE OF WORK	PERIOD
Principal	Government Engineering College, Dahod (Gujarat)	Administration	17, September 2022 to Continue....
Principal	Government Engineering College, Palanpur (Gujarat)	Administration	01, April 2017 to 16, September 2022
Associate Professor	Government Engineering College, Patan (Gujarat)	Teaching and Research	20, September 2012 to 31, March 2017
Assistant Professor	Government Engineering College, Patan (Gujarat)	Teaching and Research	01, January 2006 to 19, September 2012
Lecturer	Government Engineering College, Patan (Gujarat)	Teaching and Research	19, July 2005- 31, December 2005
Lecturer	Government Polytechnic, Palanpur (Gujarat)	Teaching	04, January 2002 -18, July 2005

E. Fields of major scientific interest in order of choice:

- Computer aided Design and Manufacturing
- Unconventional Manufacturing Processes
- Abrasion based Hybrid Machining Processes
- Solar Thermal Engineering

- Nano/Micro-Machining Processes
- Simulation and Optimization of Manufacturing Processes
- Finite Element Method (FEM) based Modeling of Machining/Finishing Processes
- Design of Experiments (DOE) in Manufacturing
- Soft Computing Methods (NN/FL/GA) in Manufacturing

F. RESEARCH GUIDANCE:

Ph.D. Guidance: (07 Students) Ph.D. Completed: 06

	Name of the Student	Research Topic	University of Ph.D. registration
1.	Ketul Brahmhatt (U41000001570) [Completed, Dec-2020]	Investigation of fatigue and tribological properties of newly developed bio-degradable natural fibre composites	Rai University, Ahmedabad
2.	Nehal Joshi (RU1304720213090) [Completed, Feb-2021]	Development of aluminum based hybrid MMC material (Al/B4C-Gr) and investigation of machining performance during wire electrical discharge machining of Al/B4C-Gr	Rai University, Ahmedabad
3.	Samir K. Raval (Left Due to Personal Reason)	Experimental Investigations and Optimization of FSW of Dissimilar Alloys (Al-Mg)	Gujarat Technological University
4.	Ashokkumar Ramjibhai Chaudhari En. No: 179999919004 [Completed, Nov-2023]	Experimentation And Simulation of Electro-Chemical Magnetic Abrasive Finishing	Gujarat Technological University
5.	Mistry Ghanshyambhai Dashrathbhai En. No 179999919027 [Completed, Sep.-2024]	Analytical Approximation of Roll Separating Force in Bar Rolling	Gujarat Technological University
6.	Chaudhary Nanjibhai Nilabhai En. No.: 179999919005 [Completed, Mar-2025]	Magnetic Abrasive Finishing of Free Form surfaces using Bonded MAPs	Gujarat Technological University
7.	Patel Vijaykumar Dasharathbhai En. No: 189999919055 [Completed, Jun-2024]	Experimental Investigation of Baffled Solar Dryer with Paraffin Wax as an Energy Storage Material	Gujarat Technological University

B.Tech. Project Guidance: (44+ Students)

G. BOOK CHAPTER: 01

Written Book Chapter on “*Electrochemical Magnetic Abrasive Finishing*” in book entitled *Nanofinishing Science and Technology: Basic and Advanced Finishing and Polishing Processes* by CRC Press, Taylor and Francis Group (2016), Ch-14, pp. 353-380.

H. Membership of Professional Bodies

- **Fellow member- *The Institution of Engineers (India)***
[Membership No. F-1288152]
- **Member-Board of Governors Siemens Centre of Excellence-Automotive - GEC Patan**
(1st March 2016 to 31st March 2017).
- **Chairman- State level Core Committee for Equivalency of Degree Engg.** [Education Deptt, Gujarat-From 22/11/2022]
- **Member-State level Executive Committee- Restructuring Engg courses of Technical Education** [Education Deptt, Gujarat-From 22/11/2022]
- **Member-State level Institute Autonomy Committee** [Education Deptt, Gujarat-From 22/11/2022]

I. RESEARCH PAPER PUBLICATIONS (39):

(I) PEER REVIEWED INTERNATIONAL JOURNALS (27)

1. K. B. Judal and Vinod Yadava (2013), Electrochemical Magnetic Abrasive Machining of AISI304 Stainless Steel Tubes, *International Journal of Precision Engineering and Manufacturing*, Vol. 14, No. 1, pp. 37-43. Publisher: Springer, ISSN: 1229-8557. **(SCI-E) (UGC:17411)**.
2. K. B. Judal and Vinod Yadava (2012), Experimental Investigations into Cylindrical Electro-Chemical Magnetic Abrasive Machining of AISI-420 Magnetic Stainless Steel, *International Journal of Abrasive Technology*, Vol. 5, No. 4, pp.315-331. Publisher: Inderscience, ISSN: 1752-2641. **(UGC:16301)**.
3. K. B. Judal and Vinod Yadava (2013), Cylindrical Electrochemical Magnetic Abrasive Machining of AISI-304 Stainless Steel, *Materials and Manufacturing Processes*, Vol. 28, No. 4, pp.449-456. Publisher: Taylor and Francis, ISSN: 1042-6914. **(SCI-E) (UGC:25304)**.
4. K. B. Judal and Vinod Yadava (2013), Experimental Investigations into Electrochemical Magnetic Abrasive Machining of Cylindrical Shaped Non-magnetic Stainless Steel Workpiece, *Materials and Manufacturing Processes*, Vol. 28, No. 10, pp.1095-1101. Publisher: Taylor and Francis, ISSN: 1042-6914. **(SCI-E) (UGC: 25304)**.
5. K. B. Judal and Vinod Yadava (2013), Modeling and Simulation of Cylindrical Electro-Chemical Magnetic Abrasive Machining of AISI-420 Magnetic Steel, *Journal of Materials Processing Technology*, Vol. 213, No. 12, pp. 2089-2100. Publisher: Elsevier, ISSN: 0924-0136. **(SCI-E) (UGC:21499)**.
6. K. B. Judal and Vinod Yadava (2014), Modeling and Simulation of Cylindrical Electro-Chemical Magnetic Abrasive Machining Process, *Machining Science and Technology* Vol. 18, No. 2, pp. 221-250. Publisher: Taylor and Francis, ISSN: 1091-0344. **(SCI-E) (UGC:25000)**.
7. K. B. Judal and Vinod Yadava (2013), A Study of Electrochemical Magnetic Abrasive Machining Process, *International Journal of Manufacturing Technology and Management*, Vol. 27, No. 4/5/6, pp. 142-153, Publisher: Inderscience, ISSN: 1741-5195. **(UGC:17116)**.
8. K.B. Judal, Vinod Yadava and D.K. Pathak (2013), Study of Vibrational Frequency and Abrasive Particle Size during Cylindrical Magnetic Abrasive Finishing, *International Journal of Precision Technology*, Vol. 3, No. 2, pp. 117-130. Publisher: Inderscience, ISSN: 1755-2079.

9. K.B. Judal, Vinod Yadava and D.K. Pathak (2013), Experimental Investigation of Vibration Assisted Cylindrical - Magnetic Abrasive Finishing of Aluminium Workpiece, *Materials and Manufacturing Processes*, Vol. 28, No. 11, pp.1196-1202. Publisher: Taylor and Francis, ISSN: **1042-6914. (SCI-E) (UGC:25304)**.
10. Amit Sharma, Vinod Yadava and **K. B. Judal (2013)**, Intelligent Modelling and Multi-Objective Optimisation of Laser Beam Cutting of Nickel Based Superalloy Sheet." *International Journal of Manufacturing, Materials, and Mechanical Engineering*, Vol. 3, No. 2, pp. 1-16, Publisher: IGI Global, ISSN: **2156-1680. (UGC:17117)**.
11. K. B. Judal (2016), "FEM Based Modeling of Cylindrical-Magnetic Abrasive Finishing (C-MAF) Process Using Unbounded Magnetic Abrasives", *ELK Asia Pacific Journals-Special Issue*, ISBN:978-81-930411-8-5.
12. Nehal I. Joshi, K. B. Judal and Ashish M. Desai (2017), "Metal matrix composites machining by Wire electro discharge machining in last decade: A Review", *International Journal of Research in Advent Technology*, Vol.5, No.1, January 2017 E-ISSN: 2321-9637.
13. Ketual Brahmabhatt and **K. B. Judal (2018)**, State of Arts: Tribological Properties of Composite materials", *International Journal of Advanced Research in Science, Engineering and Technology* Vol. 5, Issue 6 , June 2018, ISSN: 2350-0328.
14. Nehal I. Joshi, **K. B. Judal** and Ashish M. Desai (2018), "Fabrication of Aluminum Based Hybrid Metal Matrix Composite Using Stircasting Technique", *JASC: Journal of Applied Science and Computations*, Volume V, Issue XII, pp 666-672. ISSN NO: 1076-5131.
15. Samir K. Raval and K.B. Judal (2020) "Recent Advances in Dissimilar Friction Stir Welding of Aluminum to magnesium alloys", *Materials Today: Proceedings*, Issue 22(4), pp 2665–2675, Publisher: Elsevier.
16. A.R. Chaudhari and K.B. Judal (2021) "Experimental investigation of electro-chemical magnetic abrasive finishing of SS 304 workpiece", *Materials Today: Proceedings*, 2021, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2021.02.295>. Publisher: Elsevier. ISSN 2214-7853.
17. A.R. Chaudhari and K.B. Judal (2021) "Development and experimentation of modified electro-chemical magnetic abrasive finishing", *Materials and Manufacturing Processes*, DOI: 10.1080/10426914.2021.2016822 Publisher: Taylor and Francis, ISSN: **1091-0344. (SCI-E)**.
18. G.D. Mistry, K.B. Judal (2022) "Literature review of the stress, strain and separating force evaluation during hot bar rolling of different types of steels", *Materials Today: Proceedings* 57, Part 2 , pp. 636-642, Publisher: Elsevier, ISSN: 2214-7853. [01-01-2022]
19. G.D. Mistry, K.B. Judal (2023) "Development of simplified analytical model to predict the roll separating force in bar rolling", *Advances in Materials and Processing Technologies*, pp. 1-17. Publisher: Taylor and Francis, Online, ISSN **2374-0698 (E-SCI)**.
20. V.D. Patel, K.B. Judal (2023), "Mathematical modelling and verification of open sun drying of cotton seeds", *International Journal of Low-Carbon Technologies*, ISSN **1748-1317 (SCI-E)**.
21. Vijay Patel, K.B. Judal, N.A. Modi, D.M. Patel, "A review on drying kinetics of food products dried using solar energy" *J. Technology*, vol. 11, issue. 5, pp. 96–115, 2023. DOI:20.18001.JOT.2023.V11I5.23.2817(Scopus Indexed Journal) (May, 2023)
22. V.D. Patel, K.B. Judal, Hitesh Panchal, Bharat Singh, Amit Jomde, Abhinav Kumar, Anand Patel, Rupal Jain, Kishor Kumar Sadasivuni (2023), "Investigation on drying kinetics analysis of gooseberry slices dried under open sun", *Environmental Challenges*, ISSN **2667-0100 (Elsevier). [December-2023]**

23. Nanji Chaudhary and K. B. Judal(2024), Development and Experimentation of Free-Form magnetic abrasive finishing process for the application of bearing surfaces, *International journal of Abrasive Technology*, Vol. 12, No.-1, pp. 77-91. Publisher: Inder science (Scopus). [19 February-2024]
24. Vijay Patel, K. B. Judal, Kamal Sharma, Marc A. Rosend, Abhinav Kumare, Mohd Aamir Mumtazf, Mohamed H. Elgamalf, Mohamed I. Faroukf, Ishfaq Malikg (2024), "Effect of channel depth ratio and absorber plate configuration on performance of a solar air heater," Case studies in Thermal Engineering, vol. 61, pp. 104789, 2024. DOI:doi.org/10.1016/j.csite.2024.104789 (SCIE Indexed Journal). [4 July, 2024]
25. Vijay Patel, K.B. Judal (2024), Suresh Prajapati, R.J.Patel, N.A.Modi, A.D.Patel, A.R.Chaudhari, "Performance Investigation of Solar Air Heater Assimilated with Paraffin wax Having Different Melting Temperature," accepted for publication in ICFAMEAD2024 .
26. Nanji N. Chaudhary and KB Judal (2024), "Effect of process parameters on free-form magnetic abrasive finishing of bearing material." *AIP Conference Proceedings*. Vol. 3108. No. 1. AIP Publishing, 2024. [30 July-2024]
27. G.D. Mistry, K.B. Judal (2024), "Analytical Approximation and Evaluation of Roll Separating Force in Bar Rolling Process.", *International Journal of Advanced Manufacturing Technology*, Vol. 134, pp. 4923-4937. (SCI-E) [18 Sep-2024]

(II) INTERNATIONAL CONFERENCES (10)

1. Samir K. Raval and K.B. Judal (2019) "A Review on residual stress in friction stir welding: causes, measuring techniques, nature of distributions, consequences and control, Gujarat Technological University International Conference, ICON-2019, March 14-16, 2019.
2. Ketual Brahmhatt and K. B. Judal (2019), EXPERIMENTAL INVESTIGATION ON NATURAL FIBERS COMPOSITE FOR SUSTAINABLE DEVELOPMENT, International Conference on Advances in Power Generation from Renewable Energy Sources (APGRES-2019).
3. K. B. Judal (2016), FEM based Modeling of Cylindrical-Magnetic Abrasive Finishing (C-MAF) Process using Unbounded Magnetic Abrasives, 2nd International Conference on Advancements and Recent Innovations in Mechanical, Production and Industrial Engineering (A R I M P I E -2016), ITSEC Greater Noida, April 15-16, pp.
4. K. B. Judal and Vinod Yadava (2013), Plane Electrolytic Magnetic Abrasive Finishing: Development and Experimentation, International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME-2013), Punjab Technical University, Kapurthala, October 3-6, pp. 319-323.
5. K. B. Judal and Vinod Yadava (2012), A Study in Electrochemical Magnetic Abrasive Machining, 4th International and 25th All India Manufacturing Technology, Design and Research (AIMTDR-2012), Kolkata, December 14-16, Vol. 1, pp. 363-368. (ISBN: 978-93-82062-75-2)
6. K. B. Judal, Vinod Yadava and Lokesh Mishra (2012), Development and Experimental Study of Plane Electrolytic Magnetic Abrasive Finishing, 4th International and 25th All India Manufacturing Technology, Design and Research (AIMTDR-2012), Kolkata, December, 14-16, Keynotes and Abstracts Volume, pp. 55. (ISBN: 978-93-82062-95-0)
7. D. K. Pathak, Vinod Yadava and K. B. Judal (2012), Effect of Abrasive Particle Size During Magnetic Abrasive Machining of Aluminium Tube, 4th International and 25th All India Manufacturing Technology, Design and Research (AIMTDR-2012) conference, Kolkata, December, 14-16, Vol. 1, pp.374-378. (ISBN: 978-93-82062-75-2).

8. R.N. Yadav, Vinod Yadava and **K. B. Judal (2011)**, Machining of Metal Matrix Composites (MMCs) using Simultaneous influence of Abrasion and Spark Erosion: A Review, International conference on Precision, Meso, Micro and Nano Engineering (COPEN-7:2011), College of Engineering, Pune, India, December 10-11, pp. 353-358.
9. K.B.Judal and Vinod Yadava (2010), Development of a New Abrasion Based Hybrid Finishing Technique for Fine Finishing of Difficult to Finish Materials, Proceedings of 3rd International and 24th All India Manufacturing Technology, Design and Research (AIMTDR-2010) conference, Visakhapatnam, December, 13-15, Vol-2, pp. 909-912.
10. K. B. Judal and P. N. Boka (2010), Computer Aided Process Sequence Design for Deep-Drawn Components, Proceedings of the 3rd International and 24th All India Manufacturing Technology, Design and Research (AIMTDR-2010), at Andhra University College of Engineering(A), Visakhapatnam, December 13-15, Vol-2, pp. 1205-1210.

(III) NATIONAL CONFERENCES (02)

1. D. K. Pathak, Vinod Yadava and **K.B. Judal (2012)**, Development of Vibration Assisted Cylindrical-Magnetic Abrasive Machining Setup, Proceedings of 3rd National Conference on Advances in Manufacturing Technology, Chandigarh, March, 15-16, pp. 274-278.
2. K.B.Judal and Vinod Yadava (2010), Review of Research Work in Magnetic Abrasive Finishing Process, Proceedings of the Golden Jubilee National Conference on Recent Advances in Manufacturing (RAM), Surat, July, 19-21, pp. 59-65. (ISBN: 978-93-80697-05-5)

J. Expert Lectures Delivered:

- Delivered Expert lecture on “**Nanotechnology & Nano-composites**” in short term training programme on “Computational and simulation aspects of Nano Science and Engineering” organized by Government Engineering College Patan (Gujarat) from **January 18-22, 2010**.
- Delivered Expert lecture on “**Application of Genetic Algorithms in Micromanufacturing**” in short term training programme on “*Micromanufacturing: Materials, Processes and Systems*” organized jointly by Mechanical Engineering Department and Applied Mechanics Department at Motilal Nehru National Institute of Technology, Allahabad (Uttar Pradesh) from **July 08-12, 2013**.
- Invited talk delivered on “**Research Opportunities at Different National Institutes: Financing agencies and Criteria**” in TEQIP-II sponsored one day workshop on Research at GEC Patan on December 13, 2013.
- Keynote lecture delivered on “**Advanced Abrasion based Machining/Finishing Processes**” in a *4th National Conference on Innovative and Emerging Technologies* organized on 2nd June, 2016 at Smt. S. R. Patel Engineering College, Unjha, Mehsana.
- Expert talk delivered on “**Intelligent Modelling and Optimization using ANN-GA**” (on 05th December, 2016) in one week STTP on “Optimization using Modern Computing techniques” during 05-09 December, 2016 at Smt. S. R. Patel Engineering College, Unjha, Mehsana.
- Invited talk delivered on “**Heat Equation and its solution using Finite Element Method**” (on 11th January, 2017) in ISTE approved STTP “Introduction to Boundary Element Method” during 09-13 January, 2017 at L.D. College of Engineering Ahmedabad.

- Invited talk delivered on “**Advanced Abrasion based Machining/Finishing Processes**” (on 1st January, 2018) in a Short Term Training Program on ‘Advances in Manufacturing & Automation (AMA) during 1st to 5th January, 2018 at GEC Dahod.
- Invited talk delivered on “**Advanced Abrasion based Machining/Finishing Processes**” (on 1st March, 2018) in a Short Term Training Program on ‘Emerging Trends in major thrust areas of Mechanical Engineering’ during 26 February to 9th March, 2018 organized online via Video Conferencing by Directorate of Technical Education, Gandhinagar.
- Invited talk delivered on “**Advanced Abrasion based Machining/Finishing Processes**” (on 26th July, 2019) in a TEQIP-III Short Term Training Program on ‘Recent Advances in Micro Manufacturing (RAMM-2019) during 23-27 July, 2019 at BIET Jhansi.
- Invited talk delivered on “**Journey to become successful Mechanical Engineer**” (on 23rd December, 2019) during Seminar at Mechanical Engineering Department, GEC Patan.
- Invited talk delivered on “**Intelligent Modeling using MATLAB (ANN)**” (on 16th December, 2021) in ATAL FDP “Research Methodology and Optimization Techniques”(RMOT-2021) by Government Polytechnic Nashik (Maharashtra).
- Invited talk delivered on “**Simulation of Machining Processes using ANN and GA**” (on 10th March, 2022) in a one-week online high-end workshop (Under the Karyashala Scheme – A SERB Initiative) from 7 March to 13 March 2022, on “Application of Statistical tools and Modelling in Engineering and Science” funded by SERB, DST.

K. Laboratory Development:

- Developed Computer Aided Design Laboratory equipped with Pro-Engineer, MasterCAM and Other Learning Resources at Government Engineering College, Patan.
- Developed Advanced Machine Tool Laboratory equipped with CNC Lathe (FLEXTURN), CNC Vertical Machining Center and Wire Electrical Discharge Machining System at Government Engineering College, Patan.
- Associated with many New Setup Development such as Magnetic Abrasive Finishing to plane surfaces, external cylindrical surfaces and internal surfaces, Cylindrical Electrochemical Magnetic Abrasive Machining.
- Many in-house Computer Graphics and FEM based software’s developed for the Simulation and/or Analysis of various Mechanical systems/ Machining Processes.
- Developed Mechanical Workshop with all required machines (Lathe, Welding, spot & Arc welding machine, Bench grinder, surface grinder including commissioning and electrification (October-2014 to March-2015).
- Developed Siemens Center of Excellence-Automotive with 09 advanced laboratories in the field of Product development and automation. (October-2014 to March-2017).
- Established “Design Lab” at Govt. Engg. College Palanpur worth Rs.25,00,000/- under financial support of Gujarat Council on Science and Technology, Gujarat (August-2017).
- Established “SSIP Incubation Center” in Central Workshop of GEC Palanpur (Mar.-2021)
- Coordinated development of Modern Computer Laboratories, Seminar Halls and Conference Halls with all required amenities to achieve academic Excellence at GEC Palanpur (2020).

L. Research Projects

- **Co-Investigator** in Research Project entitled “Cylindrical Electrolytic Magnetic Abrasive Machining (C-EMAM): Development, Modeling and Optimization” submitted to Council of Scientific and Industrial Research (CSIR), New Delhi worth **Rs. 16,86,720/-** (Three Year duration). Investigation going on at Motilal Nehru National Institute of Technology, Allahabad under Principal Investigator Prof. (Dr.) Vinod Yadava, Year: 2014-2017.

M. Consulting experience

List key consulting assignments undertaken

S.No.	Client/Organisation's Name	Nature of Assignment	Duration of Assignment
1.	DRDA & District Development Office, Banaskantha	Infrastructural gap analysis and DPR preparation for 14 villages covered under Vrindavan Gram Yojana (Rs.14,00,000/-)	January,2019 to December, 2021

N. STTP/SEMINAR/Workshop Organized:

- Coordinator in TEQIP-II sponsored one week short term training programme on “**Digital Manufacturing using RobCAD**” at Government Engineering College, Patan, Gujarat during **17-21 October, 2016**.
- Coordinator in TEQIP-II sponsored one week short term training programme on “**Recent Trends in Automation & Control**” at Government Engineering College, Patan, Gujarat during **24-28 October, 2016**.
- Coordinator in TEQIP-II sponsored two week short term training programme on “**Computer Aided Engineering using NX**” at Government Engineering College, Patan, Gujarat during **07-19 November, 2016**.
- Coordinator in TEQIP-II sponsored one week short term training programme on “**CAD using NX**” at Government Engineering College, Patan, Gujarat during **25-30 April, 2016**.
- Co-coordinator in TIFAC, DST New Delhi sponsored one workshop on “Intellectual Property Rights” at Government Engineering College, Patan, Gujarat on 21st February, 2008.

O. Short Term Courses/Seminars/ Workshop Attended:

Sr. No.	Course Title	Venue	Duration
1.	Development in and application of all solid state Lasers	IIT,Kanpur	09-01-2006 to 14-01-2006
2.	CAD Using PRO-E	NITTTR, Chandigarh	24-04-2006 to 28-04-2006
3.	Induction Training Application	NITTR,Bhopal	15-05-2006 to 27-05-2006
4.	Recent trends in Nano-composites	IIT,Kanpur	06-11-2006 to 10-11-2006
5.	Microsoft .NET	GEC Patan	Feb-2007 to Apr-2007
6.	CFD & Heat Transfer	CEP,IIT,Bombay	05-05-2008 to 09-05-2008
7.	Product life cycle Management using CAD	IUCEE,GEC-INFOSYS, Mysore	14-07-2008 to 18-07-2008
8.	Advances in Manufacturing	SVNIT,SURAT	29-12-2008 to 02-01-2009

9.	Computational and simulation aspects of Nano Science and Engineering	GEC,PATAN	18-01-2010 to 22-01-2010
10.	Micromanufacturing: Materials, Processes and Systems	MNNIT, Allahabad	08-07-2013 to 12-07-2013
11.	Research Methodology	SPIT, Piludara, Mehsana	27-07-2013
12.	Developing PEO's PO's & CO's for Degree & Diploma Programme in Mechanical & Allied Branches	NITTTR Bhopal Ext. Center, Ahmedabad	30-09-2013 to 04-10-2013
13.	Workshop on Curriculum Design, PEO, PO and CO	L.D. Engineering College, Ahmedabad	28-11-2013 to 30-11-2013
14.	Online Course on Piping Engineering (through IIT Bombay's Online Portal CEPGLOBE)	GEC Patan & LDCE, Ahmedabad	Dec-2013 to Mar-2014
15.	Advance Machine Design (AICTE Sponsored under QIP)	VJTI Mumbai	02-12-2013 to 06-12-2013
16.	Karmayogi Residential Training for Quality Improvement Program in Technical Education	Swaminarayana Dham, Gandhinagar	17-01-2014 to 19-01-2014
17.	Workshop on Leadership Exposure	IIT Kanpur	17-02-2014 to 19-02-2014
18.	2 nd World Summit on Accreditation by NBA	Hotel Great Ashok, New Delhi	08-03-2014 to 10-03-2014
19.	Managing Multiple Perspectives in Institutional Development: Programme for Engineering Colleges of Gujarat, TEQIP-II	IIM Ahmedabad	25-03-2014 to 27-03-2014
20.	Intellectual Property Rights	NITTTR Bhopal	27-10-2014 to 31-10-2014
21.	Advances in Mechanical Engineering & Allied Disciplines	NITTTR Bhopal	24-11-2014 to 05-12-2014
22.	CAD using NX	GEC Patan	25-04-2016 to 30-04-2016
23.	TEQIP-II Management Capacity Enhancement Programme	IIM, Trichy, Chennai Campus	20-06-2016 to 24-06-2016
24.	Digital Manufacturing using RobCAD	GEC Patan	17-10-2016 to 21-10-2016
25.	Recent Trends in Automation & Control	GEC Patan	24-10-2016 to 28-10-2016
26.	Computer Aided Engineering using NX	GEC Patan	07-11-2016 to 19-11-2016
27.	NAAC sponsored Seminar on "Quality Initiative: Gateways and Pathways to Institutional Excellence"	Nirma University	03-03-2017 to 04-03-2017
28.	Office Ethics and Personality Development	SPIPA, Ahmedabad	04-07-2019 to 06-07-2019
29.	UDAYAM (Unlimited Digital Advanced Yearlong Academic Method of Learning) E-Content Development Course	ONLINE (KCG & Education Department)	28-07-2020 to 18-08-2020

30	COMPREHENSIVE ONLINE INTELLECTUAL PROPERTY RIGHTS (IPR)	ONLINE (I-Hub and Education Department)	06-07-2020 to 14-09-2020
31	Symposium of Vice-Chancellor on Building World Class Universities (With a Thrust on Quality Education, National and Global Ranking)	Education Department, Gujarat. Venue: Tent City-II, Statue of Unity, Gujarat.	13-14 December, 2021
32	Advanced Industry Powered Faculty Immersion Program	L&T Edutech, L&T Head Quarter, Chennai	May 29 – June 03, 2023
33	Two-Days Workshop on NIRF and NBA	GTU-Ahmedabad	August 24 – 25, 2023
34	Train the Trainer Programme on Effective Implementation of NEP-2020 in Technical & Professional Institutes of Gujarat	Vidya Samiksha Kendra, Gandhinagar (by CTE, Gandhinagar & NITTTR Chandigarh)	October 14-18, 2024
35	GIFT City Talent Summit-The Emerging Talent Frontier	IIT Gandhinagar	October 17, 2024
36	Strategic Leadership Conclave for Principals on NEP and Innovation for Technical Institutes	GTU Ahmedabad	October 21, 2024

P. MoUs, Projects and Consultancy Experience:

- District Rural Development Authority & District Development Office, Banaskantha Gujarat: Infrastructural gap analysis and DPR preparation for 14 villages covered under Vrindavan Gram Yojana (Rs.14,00,000/-) [January,2019 to December, 2021]
- *Coordinator-Establishment of Centre of Excellence (COE)-Automotive in collaboration with Siemens Industry Software (India) Ltd, Designtech Systems Ltd & GEC Patan at GEC Patan (1st April 2015 to 31st March 2017)*

Q. Administrative Experience/ Responsibilities:

- Coordinator-College to Career Program, GEC Patan (July-2006 to June-2008)
- Library Incharge, GEC Patan (September-2007 to July-2010)
- Training and Placement Officer, GEC Patan (August-2013 to July-2015)
- Convener, III Cell, GEC Patan (December-2013 to February-2016)
- *Hostel Rector, GEC Patan (1st August 2013 to 31st March 2017)*
- Workshop Superintendent, GEC Patan (1st April 2014 to 31st March 2017)
- Mechanical Engg. Department NBA Coordinator, GEC Patan (August-2013 to October-2014)
- *Security Officer Incharge, GEC Patan (1st October 2014 to 31st March 2017)*
- Worked as Incharge Principal, GEC Patan (Approximately 45 days total) in Academic Year 2014-to-2016.

- Member-IQAC, GEC Patan (1st December 2014 to 31st March 2017)
- Nodal Officer Placement, Zone-2 Node-2 Banaskantha (November-2018 to September-2021)
- Institutional Inspection Officer for GEC Godhra, GP Godhra, GEC Dahod and GP Dahod. (February 2020 to September 2022).
- Zonal Officer (Placement) – North Gujarat (Zone-2) (October-2021 to September-2022).
- **Regional Head, Mukhyamantri Apprentice Yojana (MAY) (April-2018 onwards)**
- **Zonal Officer (Placement) – Central Gujarat (Zone-3) (November-2022 onwards).**
- **Chairman, State level Core Committee for Equivalency of Degree Engg.-Education Department (November-2022 onwards)**
- **Member, State level Executive Committee- Restructuring Engg.- Education Department (November-2022 onwards)**
- **Member, State level Instt. Autonomy Committee- Education Department (November-2022 onwards)**
- **Additional Charge of Principal, Govt. Engg. College Palanpur (20 June 2023 onwards).**

R. Strength/Capability:

● I am working as a regular Principal in Government Engineering Colleges since last seven years and able to manage multiple perspectives at a time to mitigate outcome-based education, administration, and management. Based on overall academic experience of 22 years, I am able to identify right person for right work based on competency and interest for overall development of the organization. I worked as a key person in establishment of Siemens CoE at GEC Patan from MoU formulation to establishment and its execution for three years and trained 1500 students for skill development in emerging areas. Through leadership exposure at IIT-Kanpur and MNNIT-Prayagraj, I am able to perform my duties as a leader to boost the quality output of an organization through reformation/transformation. I can work on common goals by coordinating and motivating faculties/administrative authorities/supporting staff for GoG/GoI schemes implementation.

Date: 16/02/2025

Place: Dahod

(Dr. K. B. Judal)