



SANDIP T PATEL

Assistant Professor
Mechanical Engineering Department,
Government Engineering College, Valsad

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EDUCATION

PG Diploma in Intellectual Property Rights Indira Gandhi National Open University	2016
MTech in CAD/CAM Sardar Vallabhbhai Institute of Technology, Surat	2009
BE in Mechanical Engineering Sad Vidya Mandal Institute of Technology, Bharuch	2004

TEACHING EXPERIENCE

Assistant Professor Government Engineering College, Valsad	2012-present
Assistant Professor Government Engineering College, Gandhinagar	2011-2012
Lecturer Semi Financed Engineering College, Navsari	2019-2010

PROFESSIONAL EXPERIENCE

Senior Engineer - Design Design Department, Kabra Extrusiontechnik Ltd., Kachigam, Daman	2010-2011
Trainee Engineer Design Department – Gear Division, Elecon Engineering Company Ltd., Vallabh Vidhya Nagar	2006-2007

FIELDS OF RESEARCH INTEREST

Computer Aided Design: Expert CAD Systems, Knowledge based CAD Systems, Artificial Intelligence in CAD Systems. CAD Customization

Vertical Axis Wind Turbine: Aerodynamics of Savonius and Darrieus type VAWT, Shape optimization of small VAWT

Gear Transmission: Direct Gear Design, Application based Expert Systems for Gear Design

Rapid Prototyping: FDM and 3D printing

TECHNICAL SKILLS

- Programming languages: Python, C, C ++, C#, AutoLisp
- Computer Aided Design packages: AutoCAD, Creo, Catia, SolidWorks, Solidedge.
- FEM and CFD: Ansys, Fluent, CFX, Star CCM+

- Other: Latex, Linux (openSUSE, Ubuntu), Windows OS

PUBLICATIONS

Journal Papers

Tala, H., and Patel, S. (2014) "Simulation of Small Scale Straight Blade Darrieus Wind Turbine using latest CAE techniques to get optimum power output" International Journal of Advance Foundation and Research in Science & Engineering, Vol. 1, Issue 5, pp. 46-58.

Patel, T., Patel, S. and other (2015) "Simulation of Small Scale Straight Blade Darrieus Wind Turbine using latest CAE techniques to get optimum power output" International Journal of Application or Innovation in Engineering and Management, Vol. 4, Issue 4, pp. 198-206.

PATENTS

Patel, S., and Lakdawala, H. (Patent Pending). "Airfoil based linear motion wind harvester", Indian Patent Office, Application No.- 201821011548, date of filing - 28/03/2018.

Patel, S., and Bopaliya, P. (Patent Pending). "Apparatus and method to cut axisymmetric article with aid of templates", Indian Patent Office, Application No.-2015/MUM/2015, date of filing - 25/05/2015.

KEYNOTE LECTURE DELIVERED

- Expert Lecture on "Entrepreneurship", Government Polytechnic, Valsad, 12/7/2019
- Expert Lecture on "Start-Up and Innovation in Entrepreneurship", Government Polytechnic, Valsad, 1/2/2019
- Expert Lecture on "Entrepreneurship", Government Polytechnic, Valsad, 20/7/2018
- Resource Speaker during one day workshop on "How to Become an Entrepreneur", Government Engineering College, Valsad, 31/3/2018
- Resource Speaker during one week STTP on "Creo for Mechanical Engineering", Government Engineering College, Valsad, 18-22 May 2015
- Expert Lecture on "Blog Creation", District Education and Training Center, Valsad, 19/1/2015

WORKSHOP / TRAINING ORGANIZED

- Workshop on "Photography", Government Engineering College, Valsad, 22-24 March 2019
- Workshop on "Lean Management", Government Engineering College, Valsad, 19-20 March 2018
- Workshop on "Photography", Government Engineering College, Valsad, 3-4 March 2018
- STTP on "Creo for Mechanical Engineering", Government Engineering College, Valsad, 18-22 May 2015

WORKSHOP / TRAINING ATTENDED

- Short term course on "Student Innovation and Start-ups", EDII, Gandhinagar, 7-11 January 2019
- Workshop on "Wind Tunnel Experiments Techniques and Applications", Parul University and L&T Power, 17 March 2018
- Short term course on "Smart Materials and Structures: Theory and Applications", PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur, 15-19 January 2018
- Online course on "Intellectual Property Law and Policy: Part 2", University of Pennsylvania, completed on 27 May 2016

- Online course on “Intellectual Property Law and Policy: Part 1”, University of Pennsylvania, completed on 19 March 2016
- Online course on “Wind Energy”, Technical University of Denmark, completed on 24 July 2016
- STTP on “Fundamentals and Special Topics in Fluid Mechanics”, SVNIT, Surat, 1-5 June 2015
- Short term course on “CATIA for Mechanical and Allied Engineering”, NITTTR, Extension Center, Ahmedabad, 25-29 May 2015
- Workshop on “How To Write Thesis Using LATEX”, Uka Tarsadia University, Bardoli, 10 January 2015
- Short term course on “Induction Phase - II”, NITTTR, Extension Center, Ahmedabad, 15-26 September 2014
- A Winter School on “Renewable Energy Source with Emphasis on Wind and Solar Energy”, NITTTR, Extension Center, Ahmedabad, 7-18 July 2014
- Karmyogi Residential Training for Quality Improvement Program in Technical Education, Education Department, Govt. of Gujarat, 20-22 December 2013
- Short term course on “Induction Phase - I”, NITTTR, Extension Center, Ahmedabad, 29 April-10 May 2013

PROFESSIONAL MEMBERSHIPS

- Life Member, Indian Society for a Technical Education

PORTFOLIOS

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|---|---------------------|
| ▪ Training and Placement Officer, T&P Cell, GEC, Valsad | 2013-present |
| ▪ Co-ordinator, Finishing School, GEC, Valsad | 2016-2018 |

SUBJECT TAUGHT

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| ▪ Machine Design and Industrial Drafting | ▪ Operations Research |
| ▪ Design of Machine Elements | ▪ Entrepreneurship |
| ▪ Machine Design | ▪ Oil Hydraulics and Pneumatics |
| ▪ Computer Aided Design | ▪ Advance Welding Technology |
| ▪ Computer Aided Manufacturing | ▪ Manufacturing Processes |
| ▪ Engineering Graphics | ▪ Industrial Safety |
| ▪ Material Science and Metallurgy | ▪ Wind and Small Hydro Systems |