

PUNIT ACHARYA

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- Citizenship : India
- Gender : Male
- D.O.B : 08 October 1991

Permanent Address: Plot No: 435/A/2, Sector 6 A, Gandhinagar-382006, Gujarat.
Present Address: F-301, Wisdom Park, Pimpri-411018, Pune, Maharashtra.



CAREER OBJECTIVE

To be a potential resource to the organization where I can utilize all my skills and knowledge which would help the organization to grow and further enhance my growth profile. It would be my never ending dedication to maintain the spectrum of integrity, honesty and character.

KEY SKILLS

- ✓ Proficient/familiar with an array of software tools and operating systems, including:
 - Simulation/Software Tools** MATLAB/Simulink, Infolytica MagNet 3D, Emetor, MCE Designer, MCE Wizard, , FEMM, VisSim, OrCAD, SabreRD, PSCAD, Pads Layout Viewer.
 - Programmer Tools** Keil MicroVision, Flash Magic, MCE Programmer
 - Operating Systems** Windows/XP
- ✓ Productive as an individual and as a team
- ✓ Innovative, Consistent performance and Goal Oriented
- ✓ Good presentation skill, hard working and committed.
- ✓ Always curious to learn & create new.
- ✓ Positive, Supportive & Flexible

PROFESSIONAL EXPERIENCE

PRESENT **Position:** Electrical Engineer
Falco e-Motors Pvt. Ltd., Pune, Maharashtra

Company profile: Falco is the leader in direct drive technology for e-bikes and HVLS fans. Its core competencies lie in PMSM & BLDC Motor Design & development, Inverter Design, Mechanical Design, Firmware Design, Regulatory compliances and Application development.

1. **Project Title:** Epoch HVLS Fan.

Team Size: 9

Role Description: Mathematical Modelling & Simulation of various models: Radial Flux PMSM motor, sensorless FOC algorithm development, model based code generation. Fine tuning system PI parameters, testing, troubleshooting, research documentation, review schematics, BOM development and technical support for marketing team.

Project Details: Design & development of PMSM motor direct drive technology for High Volume Low Speed (HVLS) fan application. Project included modelling & simulation, motor design, hardware design, embedded & firmware development, application development, fine tuning & testing, troubleshooting, research documentation & customer support, CFM & Coverage analysis, design analysis.

2. **Project Title:** Mechanical Reel.

Team Size: 7

Role Description: Modelling & Simulation of various models: including Axial Flux PMSM motor, sensorless FOC algorithm development, research documentation, BOM development.

Project Details: Design, development & manufacturing of mechanical reel for Casino using PMSM motor drive. Contribution included design of Axial flux SPM motor (Concept 1 & 2), Motor winding diagram, FEA Analysis in MagNet 3D, Hardware & Circuit Design, development and testing of system.

2015 to 2016 **Position:** Assistant Professor

Shree Swaminarayan Institute of Technology, Bhat, Gandhinagar, Gujarat

- Subjects taught at B. E. Level: Power Electronics, Analog Circuit Design, Field Theory, Electronic Devices & Circuits, Basic Electronics, Circuit & Network, EEE Workshop.

EDUCATIONAL CREDENTIALS

2013 to 2015 **Master of Technology in Power Electronics and Drives with “CGPA - 8.736”**
SRM University, Kattankulathur, Tamilnadu, India.

2009 to 2013 **Bachelor of Engineering in Power Electronics with “CGPA – 6.96 ”**
Vishwakarma Govt. Engineering College, Ahmedabad, Gujarat, India.

2008 to 2009 **XII (H.S.C) Gujarat Board with “73.4 percentage”**
Infocity Junior Science College, Gandhinagar, Gujarat, India

2006 to 2007 **X (S.S.C) Gujarat Board with “77.38 percentage”**
M.B.Patel English Medium School, Gandhinagar, Gujarat, India

RESEARCH WORK

INTERNATIONAL PUBLICATION

- ✓ Punit Acharya, S. S. Dash, A. Venkadesan (2015): “Modeling and Analysis of Phase Shifted PWM Techniques for Multilevel Inverter Fed Induction Motor Drives”, *International Journal of Applied Engineering Research*, Journal indexed in: SCOPUS, EBSCOhost, GOOGLE Scholar, JournalSeek, J-Gate, Impact factor: 1.8233.

Contribution: Simulation, Results and analysis, data collection and paper formatting.

- ✓ Punit Acharya, Vishal Rangras (2014): “Modified Sine Wave Phase Disposition PWM Technique for Harmonic Reduction in Multilevel Inverter Fed Drives”, *6th IEEE India International Conferences on Power Electronics*, Conference Proceedings, **IEEE Xplore Digital Library**.

Contribution: Simulation, Results and analysis, data collection and paper formatting.

NATIONAL PUBLICATION

- ✓ Vishal Rangras, Punit Acharya, N. D. Mehta (2012): “Design and Simulation of Phase-Integral Switching Control”, *STM journals- Journal of Power Electronics and Power Systems*. ISSN: 2249-863X, Vol. 2(3), 8-13.

Contribution: Data collection and paper formatting.

- ✓ Vishal Rangras, Punit Acharya (2012): “Design and Simulation of Cosine Firing Scheme for Thyristor Triggering”, *PARIPEX- Indian Journal of Research*. ISSN: 2250-1991, Vol. 1(8), 64-67.

- ✓ **Contribution:** Simulation, Results and analysis.

PROJECT WORK / ACHIEVEMENTS

Post Graduation (AY 2013-2015)

Major Project: “SPEED CONTROL OF PV INPUT BASED MULTILEVEL INVERTER FED INDUCTION MOTOR DRIVE”

Minor Project: “MODELING AND ANALYSIS OF PHASE SHIFTED PWM TECHNIQUES FOR MULTILEVEL INVERTER FED INDUCTION MOTOR DRIVE”

Under Graduation (AY 2012-2013)

Project Title: “CLOSED LOOP SPEED CONTROL OF DC MOTOR USING COSINE FIRING SCHEME”

Other projects: Minor projects with hardware implementation on FET, R-2R Ladder DAC Converter, Microcontroller loader circuit & Open loop control of DC motor as a part of academics.

- ✓ Secured top position in events like Paper Presentation, Digilution, Junkyard wars, Electro-X in National level Technical Symposium “TechnoAspire.”
- ✓ Enrolled as a Urja Rakshak(Energy Saver) for ‘Bal Urja Rakshak Dal programme’(Children Energy Saver Team Programme) organized by Gujarat State Energy Development Agency.

INDUSTRIAL TRAINING AND VISITS

- ✓ 3-day training on ‘Solar Photo Voltaic System’ conducted by MSME Technology Development Centre, 2015.
- ✓ LEAN SIX SIGMA – YELLOW BELT certified by MSME Technology Development Centre, 2014.
- ✓ Short term Industrial training at Kalpataru Power Transmission Limited on Power Grid and Transmission, Gandhinagar, 2014.
- ✓ Industrial visit at Loco Carriage and Wagon workshop, Dahod, 2012.
- ✓ Industrial visit at Adani Power Plant, Mundra Port, Adani SEZ and Adani Wilmar Oil Refinery, Mundra, 2011.
- ✓ Short term Industrial Training at Powertronics Control System on Basics of AC Drives and PLC, Ahmedabad, 2011.

AREA OF INTEREST

Electric Motor Drive, Motor Design, MATLAB Simulation, FEA, Automation, Converters, Electric Vehicles, Renewable Energy Sources, Microgrid

LANGUAGES KNOWN

English

Hindi

Gujarati (native)

DECLARATION

I hereby declare that above written particulars are true to the best of my knowledge and belief.

Punit Acharya

Gandhinagar