

2021

# Curriculum vitae

## [PH.D ] Electrical Engineering

I am a man of pleasant personality, having likings for challenges, higher responsibility flair for R&D related works, Development in Research lab, Academic Works, Industrial project works and Innovation work. Developed a strong interest in health and physical fitness while studying in the Engineering Institute and development of Healthy Business Network in Renewable Industrial area.



## Dr.Rajendra R. Aparnathi(PH.D-EE)



[M/S. EES VENTURES PVT LTD (CEO)]  
AHMEDABAD

[M/S. POWEREX ELECTRA LLP (M.D)]

[A/101,SWAGATRAIN RAINFOREST-II]

[AHMEDABAD- GANDHINAGAR, KUDASAN, GUJARAT-INDIA]

[+918980202459, +919537144499]

[rajendraaparnathi@gmail.com/ info.solar@eraenvirosolutions.com/info@powerexelectra.com/ ]

### CAREER OBJECTIVE

**“To serve a techno academic organization fulfilling the needs of industry”**

Dedicated and technically skilled academic professional with a versatile administrative support skill set developed through experience as an Expert Lecturer, R&D and Assistant professor.

Excel in resolving employer challenges with innovative solutions, systems and process improvements proven to increase efficiency, teaching satisfaction and the bottom line.

- **Starting Company Managing Director M/s. Powerex Electra LLP, EPC work in Solar Projects and Engineering / Technical Consultancy works in Governments and Privets Agencies at to start 01/10/2016 More than 15MW project work in Field.**
- **Starting Principal Inspection in TPI in TUV Hindustan Agency for Third Party Inspection in Government of Gujarat Agency and Departments at to start 03/01/2017.**
- **Study and Operation Maintenance in BIPV Solar Project in ISRO, South Bopal , Ahmedabad at Industrial sector Project given by KAUTILYA INSTITUTE OF TECHNOLOGY AND ENGINEERING (KIET), ISI-16 RIICO, Institutional area, Sitapura Jaipur -302022**
- **Dedicated Assistant Professor with 6th years of experience in Academics and Teaching Professional**
- **Current Designation: Senior Assistant Professor Electrical Engineering Department,**
- **Last Company/Institution : C U Shah College of technology & Engineering. Wadhwanacity, GTU & C U Shah University- Gujarat**
- **Current Location: C U Shah College of technology & Engineering. Wadhwanacity, Surendranagar, Gujarat-India**
- **Functional Area: Engineering Teaching & Design / R&D/ Research Associate**

### RELATIVE SKILL

#### BOOK PUBLISHED

- **Industrial Energy Audit, Lambert Academic Pub. Germany**

ISBN - 978-620-2-52592-3, 14<sup>th</sup>, April, 2020

- L-C-L Filter for 3- $\phi$  Inverter - Lambert Academic Pub. Germany  
ISBN-978-3-659-26001-8, 8th October, 2012
- Power Filter Design to improve Power System Engineering  
ISBN978-3-659-27435-0 -Lambert Academic Pub. Germany 15th October, 2012
- Electrical Machine and Drive (Introduce Advance Control),Lulu Engineering academic Publication-USA, ISBN:580-0-098-10107-9, 2013
- Basic electronics Components and Devices \*

## PAPER PRESENTATION

- Modeling, Simulation of Permanent Magnet Synchronous Machine Drive using FOC Technique\*(IJOART), (**Impact Factor : 0.49**), September, 2013.
- Maximum power point tracking in PV System with Industry applications, International Journal of Power Electronics and Drive System (IJPEDS) ISSN No.: 2088-8694, September 2013. (**Impact Factor 0.93**)
- Electromagnetic base Biosensor foe Extremely low frequency brain wave, **International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (An ISO 3297: 2007 Certified Organization) Vol. 2, Issue 9, September 2013 ISSN (Online): 2278 – 8875**, As a part of C U Shah University Ph.D Scholar (**Impact Factor: 1.65**)
- “Magnetic Femtotesla Inductor Coil Sensor for ELF Noise Signals-( 0.1Hz to3.0 Hz)” has been accepted for publication in IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE). e-ISSN No. :2278-1676 p-ISSN No. : 2320-3331 As a part of C U Shah University Ph.D Scholar at September 20 ,2013 (**Impact Factor :1.469**)
- Design and Simulations of Solid Oxide Fuel Cell Power System using Three Phase Inverter for Grid Applications. **International Journal of Science and Research (IJSR), India Online ISSN: 2319-7064-2013**
- “Design Controllable Solar charger for Industrial Application” Research Articles in Science and technology research organization SATRO in India-2013, [www.satiro.in](http://www.satiro.in)
- LCL Filter for 3- $\phi$  Stable Inverter Using Active Damping Methods has already been published in the Open Science Repository in Electrical and Electronics Engineering Journal **0.4 Impact Factor** (1st March, 2013) <http://www.open-science-repository.com/engineering-70081934.html>.  
<http://www.mendeley.com/profiles/open-science-repository/publications/journal/>

- Study of the LCL Filter for Three Phase inverter in higher stability for the Active damping Method using Genetic Algorithm Base. **International Journal of Advancements in Technology(Impact factor : 0.49) ISSN : 0976-4860 at 18th December,2012**
- A Voltage Controller in P V System and DC Applications. In Accepted International Journal of Emerging Technology and Advanced Engineering at 4th November 2012.
- LCL filter for 3- $\emptyset$  stable inverter using active damping method base on Genetic Algorithm in WASET (International journal on Electrical, Computer, Electronics, Communication Engineering ) 2012

## EDUCATION

[The Faculty of Engineering &Technology, C U Shah University-Wadhwancity, Gujarat-India] 2013-till Date  
[P.hd (Electrical Engineering)] 2017

[The Faculty of Technology]

[M.E-(IE) Electrical Engineering-57.2%]

2012

[Thesis: "Genetic algorithm based design of the LCL-filter for three-phase inverter."

Guided by Dr .Hina Chandwani and the Head of Electrical Dept. Prof. S.K. Shah The Maharaja Sayajirao University of Baroda, Vadodara-Gujarat-India]

[The Maharaja Sayajirao University of Baroda. Vadodara, Gujarat-India]

[S.S. Engineering College]

2008

[B.E-Electrical Engineering- 62.4%]

[Bhavnagar University, Gujarat-India]

## AREAS OF EXPERTISE

- Research Department in Industrial Electrical & Electronics in R & D-Lab
- Electrical Department in Power System Engineering & Electrical Machine.
- Electrical & Electronics Department in Industrial Electronics and Power Electronics.
- Sensor Technology
- Renewable Energy.

## OTHER ACTIVITY

### WORKSHOP ORGANISED & EXPERT TALK

- As a GTU regular interview process for the selection of permanent post of Lecturer as a subject expert in OM Institute of Engineering & Technology, Junagadh. (27<sup>th</sup> April, 2013)

- One day workshop on “Circuit Design Tools and Simulation”(Fundamentals, Technology and Application)” in Government polytechnic Institutions -Amareli inport of GTU innovation Council programmer. ( 23th March-2013 )
- National Level The one-day workshop on energy conservation Awarness with GEDA, PCRA and PGVCL. Venue by Dr.Subhash Technical Campus(faculty of Engineering)-Junagadh, as a part of GTU Innovation Council (3<sup>rd</sup> March,2013)
- One day workshop on “Circuit Design Tools and Simulation”(Fundamentals, Technology and Application)” in Balaji Technical Institute(Faculty of Engineering & Faculty of Diploma Studies)-Junagadh in part of GTU innovation Council programmer. As Expert talk and lab section. (10<sup>th</sup> Maech,2013)
- One day workshop on “Circuit Design Tools and Simulation”(Fundamentals, Technology and Application)” in N.R.Vecariya Institution-Junagadh. In part of GTU Innovation Council IDP/UDP programmer. As Expert talk and lab section. (1<sup>st</sup> March, 2013)
- The Online A-VIEW Workshop on Saturday the 22nd December 2012 Amrita E-Learning Research Lab, Amrita University, <http://aview.in> .
- Workshop on Competency Advancement as a part of faculty development programme comprising in Noble Group of Institutions in junagadh. At 15-26 Dec, 2012.
- “Design &Discuss photovoltaic Converter/Inverter Application” in Workshop (Advance Technology in Auto Application), Sponsored by Mahindra 2 Wheelers Ltd-Puna on 14th November 2012.
- “Design & Discuss Wireless Power Supply in Communication System Application” Sponsored by RTTC Ahmedabad on 22th October,2012.
- Attended STTP on Renewable energy on Feb. 14th to 18th 2011 at BVM Engineering College, V.V.nagar.

#### • R&D DEPARTMENT OF COLLEGE

- Research project work in Dr.subhash Technical Campus (faculty of Engineering) with mechanical Department “Automation base For shaft machine” **January 2013 – April 2013**
- Research project work in Faculty of Technology in M.S.U-Baroda, in Industrial Electronics department “Transformer Less P.V. Inverter “ **June 2012 – February 2013**
- Research work with Dr.ved vyas Dwivedi in Noble Group of Institution-Junagadh, and Develop Research Lab in Institutions Multi discipline streams. In Lab Works UG, PG students.  
**November 2011 – December 2012**

#### • ACADEMIC PROJECT

- Single Phase Chopper (ME- I-Year)
- Current Source Inverter (ME- I Year)
- Power BJT Triggering Circuit (ME- I Year)
- Controlling DC Motors using DSP TMS320c6711 (ME -I Year)

#### • R&D DEPARTMENT WORKS WITH INDUSTRY.

- Pacific pipe systems pvt.ltd –A group company of Doshion Limited-India “Research and Innovation project: To design Transmission line for this plant with more beneficial power using GEB (MGVCT) Power or Generator.” **September 2012 – February 2013**
- Fivebro international Pvt. Ltd, Naranpur, Tal. Sanand Dist. Ahmedabad research base project in R&D Department “Improving the design, and set-up of the H-V line for power factor **June 2011 – July 2012**
- Design & transformer less PV Inverter System” in R&D Department Regional Telecom Training Center and G.T.U (Research Innovation Counseling) **November 2011 – May 2012**
- Design SEPIC Converter for Solar cell and Advance Application” R&D Department in SPS Automation-Nadiad **November 2011 – November 2012**
- Project work at R&D Dept, Scientech Technologies Pvt. Ltd.-Indore. “Solar inverter and SM power supply “ **January 2012 – August 2012**
- Project on PV Solar Inverter transformer less in - R&D Dept. Top Sun Energy. Pvt. Ltd- Ahmedabad **January 2011 – August 2012**
- Project work at R&D Department S.P.S Automation-Nadiad. “L-C-L Filter for 3-Phase Inverter for Active Damping methods “ **July 2010 – December 2011**

## TRAINING UNDERGONE

- R&D Department, Electrotherm. Pvt. Ltd –Ahmedabad. **June 2010**
- 400 Kv, 220 Kv, 132 Kv, 66 Kv, Power Distribution at GETCO – Jetpur Division. **June 2007**
- Co-Generation Power Plant (36MW) at Indian Rayon –Veraval (a Unit of Aditya Birla Group).

## AWARDS

[ENERGY AUDIT FOR INDUSTRIAL AREA - ISBN-978-3-659-18730-3]

- March-2020

[Lambert Academic Publication-Germany]

[Supervisor of Electrical Contractor Approve by Government of Gujarat, India]

September 2013

[Society for Research and Initiatives for Sustainable Technologies and Institutions-GTU, India]

July 2012 – January 2013

[Under Supervision 8<sup>th</sup> semester E&C Students Design Single phase pulse width Modulation (PWM) Inverter Using photo Voltaic (PV) Cells.]

[Established three national awards for innovative student/faculty projects in engineering, pharmacy, science and applied technologies. These will be given away by Padmabhushan Dr. R.A.Mashelkar, President Global research alliance and Chairman, NIF at IIM-Ahmedabad in 2012-2013.]

[Lulu Engineering Academic Publication-USA]

[Prof. Rajendra Aparnathi, Dr. ved Vyas dwivedi]

[Electrical Machine and Drive (Introduce Advance Control)]

2013

[Lambert Academic Publication-Germany]

[Prof. Rajendra Aparnathi, Dr. ved Vyas dwivedi]

2012

[L-C-L Filter for 3-Ø Inverter- Introduction to Design- ISBN-978-3-659-26001-8]

[Lambert Academic Publication-Germany]  
[Prof. Rajendra Aparnathi, Dr. Ved Vyas dwivedi]

2012

[Power Filter Design to improve Power System Engineering- ISBN978-3-659-27435-0]  
[Basic electronics Components and Devices \*]

[Co-Guide of M.E. Student in Out of State]

2013

[B.R.C.M College of Engineering and Technology of Bahal, Haryana, India]

[Design and Simulation of Solid Oxide Fuel Cell using inverter for Grid application, Department of Electrical and Electronics Engineering]

## TEACHING EXPERIENCE

[C U Shah Engineering & technology (Faculty of Engineering) Gujarat-India]

[As an Assistant Professor in Electrical & Electronics Department]

June 2013 – till date

[CU Shah University-Wadhwan city, Gujarat, India & Gujarat Technical University-Gujarat, INDIA]

### PROFIL

- GTU Exan Duties
- 7<sup>th</sup> Semester Class Counselor
- Internal Exam Committee member
- Final year student IDP/UDP Project Supervision in C U Shah College of Engineering and technology, GTU-Inda
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[Dr.subhash Technical Campus-Junagadh (Faculty of Engineering) Gujarat-India]

[As an Assistant Professor in Electrical Department (H.O.D)]

January 2013 – June 2013

[Gujarat Technical University-Gujarat, INDIA]

### PROFIL

- GTU Exam Duties
- 4<sup>th</sup> Semester Subject Labs Develop in Institute level
- 5<sup>th</sup> Semester Subject Labs develop in Institute level
- Industrial Visits(Junagadh power, Sapur substation(GETCO))
- Training placement department activity
- UDISHA Club activity in University & Institute levels
- As Co-ordinator The Online A-VIEW Workshop on Saturday the 19th January 2013 Amrita E-Learning Research Lab, Amrita University, <http://aview.in>

[Noble Group of Institutions-junagadh]

[As the Head and Assistant Professor in Electrical Department]

June 2011 – January 2013

[As the Head Assistant Professor in Electronics & Communication Department]

[AS a Co-ordinator in Research Department]

[Gujarat Technical University-Gujarat, INDIA]

### PROFIL

➤ [As Co-ordinator of Department of Research & Development]

- GTU Academic Inspection Committee member in College
- Design of Inter departmental Research and innovation lab in Campuses
- Corresponding with GTU IDP/UDP Innovation
- As Working in Udisa club- In Noble Group of institution with GTU

- I have taken Workshop on Basic introduction in MATLAB software in Noble Engineering College (NGI-Junagadh).
- As a Co-ordinate Workshop on Analog and digital Components in Basic Circuit Lab speaker Mr.Manish joshi (Dy.CEO) Scientech Technologies Pvt. Ltd.-Indore and Noble Group of Institution-Junagadh.
- As a co-ordinate Workshop on Briefly introduction on UPSC/GPSC civil service Exam under by Collector of Junagadh and Noble group of Institutions-Junagadh.
- As a Co-ordinate Workshop on power Electronics Drives and control using Arm M3,M4 controller with NI-Tech (S.V.N.I.T-Surat) Prof.Janak sir in Noble Group of Institutions-Junagadh.
- Guide for M.E. 4 Students (1 Student in ME-EC -1st year Bardoli Engineering College & 3 Students ME-IE in dissertation M.S.U Baroda) External guide /Co-guide.
- IN 8th semester students Project Development in R&D lab.
- Guide for Under Graduate 14th students in EC- 8th semester and EC-7th semester Projects.

- **[As an Assistant Professor in Electrical Department (H.O.D)]** **June 2012 – January 2013**
  - 6th semester subjects Labs Development and Establish in College.
  - 5th semester Co-ordinator in department.
  - Placement officer for Electrical Department in college cell-NGI, Junagadh.
  - Electrical M/C-II &Power Electronics-I Labs Development and set-up.
  - Power Electronics-II &Protection Labs Development and set-up.
  - As a part of Working in GTU Exam Duties and Exam Co-Coordinator.
  - AICT Data Committee member for Department in College.
  - Member of Anti-ragging committee on institute level.
  - Member of disciplinary committee on institute level.
  - Member of time-table committee on institute level.
- **[Assistant Professor and H.O.D. In Electronics & Communication Department]** **June 2011 – July 2012**
  - Design M.E.- Electronics & Communication syllabus and Proposal Data for AICT approval in Noble Group of Institutions-junagadh
  - As a part of Working in GTU Exam Duties and Exam Co-Coordinator.
  - Electronics & Communication UG & PG Courses subjects Lab Design.
  - National Events Co-coordinator in Institution.
  - In 8th semester 100% Result in Power Electronics subject & 80% Result in DSP subject-in 2011/2012
  - Co-ordinate Industrial visits for E.C 8<sup>th</sup> & 4<sup>th</sup> Semester students, EE 4<sup>th</sup> Students in
    - Top-sun Pvt. Ltd- Ahmedabad
    - Thermal Power Plant-Vanakboli
    - Jyoti Pvt. Ltd-Baroda
    - Electrothem-Ahmedabad

[DDIT. D.D Univercity, Nadiad.]

**August 2010 – December 2011**

[As a Teaching Assistant in E&amp;C Department]

[Nadiad, Gujarat-India]



**PROFIL**

- Under guided 8th semester was 1 KW Inverter design in R&D
- As worked in maintenance of machine Lab in department.
- I have taken subject Electrical Machine 74% result

**RELATED INDUSTRIAL EXPERIENCE**

[As a Lecturer, Electrical Engg.Department]

January 2009 – September 2009

[C. U. Shah Technical Institute of Diploma Studies]

[Wadhwan City (Gujarat-India)]

**PROFIL**

- Guided students in final semester project work.
- Taught subjects like Generation and Transmissions, Fundamental of Ele Eng., Digital Electronics, Electrical Machines. (Theory and practical sessions). Apart from teaching I was also involved in various Department/Institute level managerial activities, administrative activities.
- Electrical machine subject taken 1<sup>st</sup> year in EEE Department.

[JBS Enterprise Pvt. Ltd (GETCO)]

August 2008 – January 2009

[In charge -S.B.O, 66Kv Sub-Station]

[Veraval, Gujarat-India]

**PROFIL**

- In charge sub-station,
- Maintenance in 66kv sub-station,
- 220 kv sub-station/400 kv sub-station in maintenance Works

**RELATED EXPERIENCE**

[Researcher]

[Research Gate-India]

November 2011 – till date

**PROFIL**

- Power Electronics & Industrial Electronics
- Power System Analysis
- Sensor technology
- Filter Technology
- R&D Researcher in SATR Organization

**MEMBERSHIPS**

[Editorial Committee Member of International Journal of Scientific and Engineering Research]

[http://www.ijser.org/editorial-board\\_page2.aspx](http://www.ijser.org/editorial-board_page2.aspx)

[AS a member of EUINEC Co-op: as a partner in E-training, Research and Development (FP& and receive funding when collaborating with European organizations)]

[http://cordis.europa.eu/home\\_en.html](http://cordis.europa.eu/home_en.html)

[Filter design in power system and Applications]

[www.researchgate.net/topic/filter\\_design/](http://www.researchgate.net/topic/filter_design/)

[Wireless sensor Network in sensor Technology]

[www.researchgate.net/topic/Wireless\\_Sensor\\_Network/&ev=](http://www.researchgate.net/topic/Wireless_Sensor_Network/&ev=)

[Harmonics Filter design in power system]

[www.researchgate.net/topic/Harmonics\\_Filter\\_design/](http://www.researchgate.net/topic/Harmonics_Filter_design/)

[Committee Member of International journal IJETAE on Electrical Engineering]

[http://ijetae.com/editorial\\_board.html](http://ijetae.com/editorial_board.html)

[Review Committee Member of International Journal on Electrical and Electronics Engineering and Technology]

<https://www.waset.org/search.php?page=32&search=>

<https://www.waset.org/search.php>

[Member of Electrical & Electronics Engineer's Alumni Association The Maharaja Sayajirao University of Baroda, Vadodara-Gujarat-India]

## **HANDS-ON WITH COMPUTER TOOL/TECHNOLOGY**

- **Software (IBM and MAC environments):** Microsoft Windows® and DOS, WordPerfect, Lotus123, Microsoft Word, PageMaker, AutoCAD.
- C/C++
- MATLAB- (DSP Toolbox)
- CCS
- P-SIM/Multi-Sims/P-spice
- P-SAT in MATLAB
- Circuit Designer Software
- MS Office, Windows OS
- Genetic Algorithm

## **AREAS OF INTEREST**

- Power Electronics & Design.
- Power System Analysis and Simulation & Application.
- DSP/Advance Microcontroller (Arm kits)
- Modern Modulation Techniques & Algorithms

## ABSTRACT

I am a man of pleasant personality, having likings for challenges, higher responsibility flair for R&D related works, Development in Research lab, Academic Works, Industrial project works and Innovation work. Developed a strong interest in health and physical fitness while studying in the Engineering Institute

## PERSONAL BRIEF

- Date of Birth: 25<sup>th</sup> December, 1985
- Gender: Male
- Language: English, Hindi, Gujarati.
- Marriage status: Married
- Hobbies : Reading, Social work,
- Blood group : B +ve
- Cast : Hindu Bava
- Category : SCBC

*“My ability to motivate students and share a love of learning fosters a successful classroom environment.... I would welcome becoming part of ‘the village that raises the child’ in your district.”*

Your Faith fully  
Assist. Prof. Rajendra R Aparnathi