CURRICULUM VITAE

**Dr. PRAVEEN R.P**

Assistant Professor &

Post-Doctoral Researcher

Dept. of Electrical Engineering

College of Engineering

Majmaah University, P.O Box 66

Kingdom of Saudi Arabia

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pravi\_8200@yahoo.co.in

**Professional Objective:**

To prove myself as a dedicated and energetic employee in a progressive organization that gives me scope to apply my knowledge and skills and be a member of a team, that dynamically works towards the success and growth of the organization.

**Personal Skills:**

Confident to face any challenge that is put forward to me and to come out successful at any field, industrious, team facilitator, and adaptable to any environment.

**Educational Details:**

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| --- | --- | --- | --- | --- | --- |
| **Course** | **Institution** | **University** | **Year of Passing** | **% Secured** | **Class** |
| **Full time Ph.D under Faculty of Engineering.** | **Cochin University of Science & Technology** | **Cochin University of Science and Technology** | **2013** |  |  |
| **M.Tech in**  **Electrical Machines.** | **College of**  **Engineering,**  **Trivandrum.** | **Kerala**  **University.** | **2007** | **8.84**  **(CGPA)** | **First (1st Rank)** |
| **B.E in**  **EEE.** | **The Indian**  **Engineering**  **College.** | **M.S.**  **University.** | **2004** | **76.3%** | **Distinction** |

**Personal Achievements:**

* **Reviewer of IEEE Transactions on Industrial Electronics, IEEE Transactions on Magnetics, IETE, Electric Power Components and Systems Journal (Taylor & Francis), Progress In Electromagnetics Research (PIER) Journal, Journal of Energy.**
* **I have got sixteen International Journal Papers published in reputed journals including that in IEEE Transactions on Industrial Electronics, IET Generation, Transmission & Distribution, Solar Energy, Energies and Sustainability Journals**
* **Thirteen of my IEEE International Conference papers are published in IEEE Conference Proceedings and are available with IEEXPLORER.**
* **Carrying out my Post-Doctoral Research cum Academic Post at Majmaah University, Ministry of Education, Saudi Arabia from August 2014 to present time.**
* **Member of the Quality Committee at College of Engineering, Majmaah University and have got good experience towards preparing the institution towards ABET Accreditation.**
* **Coordinator of the Assessment and Evaluation Committee and Undergraduate Research and Assistance Committee of Dept. of EE, College of Engineering, Majmaah University.**
* **Awarded with a Merit Certificate from the Dean, College of Engineering, Majmaah University for outstanding performance in the College of Engineering during the academic year 2015-2016, 2017-2018.**
* **I was awarded University Junior Research Fellowship for carrying out my research leading to Ph.D at School of Engineering, Cochin University of Science and Technology.**
* The **Hybrid Stepper Motor designed by me** for Future **IRS**(Indian Remote Sensing) missions was accepted by **ISRO**(Indian Space Research Organization) and the motor has been fabricated.
* **As part of my Ph.D work I have worked along with the Chandrayaan team of ISRO for the Design, Analysis and Realization of a Zero Cogging BLDC Motor for Spacecraft Applications.**
* **First Rank in M.Tech (Electrical Machines)**, (2005-2007 batch College of Engineering, Trivandrum ) from Kerala University.
* **Nominee for the** **Young Scientist Award** at 20th Kerala Science Congress.
* **Best Conference paper award** at the 8th National Conference on Technological Trends held at College of Engineering, Trivandrum.
* **Served as University of Calicut Examination Panel member for evaluating M.Tech Thesis.**
* **Instrumental in setting up first P.G. program of Jyothi Engineering College i.e. M.Tech in Power Electronics and became the P.G. Co-Ordinator & served as the Professor and Head of the Department.**
* Published nine National Conference Papers**.**
* I have delivered a half day Lecture on **“Familiarization of Maxwell Software** **Package”** in the **TEQIP** sponsored short term course for Engineering College Faculty at College of Engineering, Trivandrum.
* I have also delivered an invited lecture at Rajiv Gandhi Institute of Technology, Kottayam on the topic **“Introduction to Finite Element Analysis”**
* General Co-Ordinator of the ISTE Sponsored three day short term course on**“Emerging Trends in Power Electronics and Systems”** sponsored by ISTE and organized by Dept. of Electrical Engineering, Jyothi Engineering College, Thrissur during 1-3 February 2012.
* Co-Ordinator of ISTE-SRM Sponsored STTP on “Power System Control Using Power Electronics” hosted by Jyothi Engineering College during 16-21st June 2014

**Teaching & Research Experience:**

Teaching Experience :

1. Organization : Jyothi Engineering College, University of Calicut,

Thrissur, Kerala, India.

Designation : Served as Assistant Professor, Associate

Professor as well as Professor & Head of the

Department of Electrical and Electronics

Engineering.

Period Served : October 2004 to July 2014

**Teaching Experience : 5 years and 9 months**

**Research Experience : 4 years**

1. Organization : College of Engineering, Majmaah University,

Ministry of Education, Kingdom of Saudi Arabia

Designation : Assistant Professor & Post-Doctoral Researcher

Dept. of Electrical Engineering

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Period Served : August 2014 to Present

**Teaching Experience : 5 years and 6 months**

Total years of Teaching and Research Experience : 15 years and 3 months

Research Experience :

1. Research Centre : College of Engineering Trivandrum &

**Indian Space Research Organization (ISRO) Inertial Systems Unit**

Period of Research : August 2007 to August 2008 (One Year)

Topic of Research : “Design, Analysis and Realization of a Hybrid Stepper Motor

For Spacecraft Applications” which was a live project of ISRO

Meant for the Solar Array Drive Assembly of Future Indian

Remote Sensing Applications .

1. Research Centre : Cochin University of Science & Technology &

**Indian Space Research Organization (ISRO) Inertial Systems Unit**

Period of Research : September 2008 to September 2011 (Three Year)

Topic of Research: “Design, Analysis and Realization of a Zero-Cogging Permanent

Magnet Brushless DC Motor for Spacecraft Applications” which

was a live project of ISRO meant for the CMG Applications of

future Chandrayaan missions.

**Subjects handled for Bachelor program in Electrical Engineering:**

1. D.C Machines
2. A.C Machines
3. Special Electrical Machines
4. Generalized Theory of Electrical Machines
5. Power Electronics & Industrial drives
6. Electromagnetic Field Theory
7. Electric Circuit Theory
8. Basic Electrical Engineering
9. D.C and A.C Machines Lab
10. Power System Analysis
11. Selected Topics in Electrical Machines
12. High Voltage Engineering
13. Fundamentals of Electrical Power Systems

**Subjects handled for M.Tech Power Electronics:**

1. Electric Drives
2. Special Electrical Machines and Drives
3. P.G. Thesis Work Co-Ordinator
4. P.G. Seminar Co-Ordinator

**M.Tech Project Works Guided:**

1. Mathematical Modelling of a Permanent Magnet Synchronous Motor Drive for Space Applications. (Research Scholar : Veena V.S)
2. Development of Control Electronics of PMBLDC Motor for Autonomous Rover Applications in Space. (Research Scholar : Greeshma Chandran)
3. Sensorless Control of PMBLDC motor for low speed aerospace Applications. (Research Scholar : Nithya.K)

**Post-Doctoral Research Projects completed** : 4

1. Performance Analysis and Optimization of a Parabolic Trough Solar Power Plant in the Middle East Region
2. Solar Energy Resource Analysis and Evaluation of Photovoltaic System Performance in Various Regions of Saudi Arabia’
3. Analysis of photovoltaic arrays efficiency for reduction of building cooling load in hot climates
4. Performance Analysis and Optimization of Central Receiver Solar Thermal Power Plants

Publication List

**International Journal Papers**

1. Praveen R.P., Ravichandran M.H et.al, “*A Novel Slotless Halbach Array Permanent Magnet Brushless DC Motor for Spacecraft Applications*”, IEEE Transactions on Industrial Electronics, vol.59, no.9, pp. 3553-3560, September 2012. **(Impact Factor : 7.503 – ISI Thomson) Citations :62**
2. Praveen R.P., Ravichandran M.H, V.T.Sadasivan Achari, Dr.Jagathy Raj V.P., Dr.G.Madhu, Dr.G.R.Bindu , “*Design and Analysis of a Hybrid Stepper motor for Actuating the gimbal of Control Moment Gyroscope ”*, International Review of Electrical Engineering (IREE) , vol.5,No.4,Part A, August. 2010, pp.1488-1495. **(Impact Factor : 1.364 – ISI Thomson) Citations :6**
3. Praveen R.P., Ravichandran M.H et.al, “*Optimal Design of a Surface Mounted Permanent-Magnet BLDC Motor for Spacecraft Applications*”, International Review of Electrical Engineering (IREE), vol.6, no.5, October 2011, pp.2318-2328. **(Impact Factor : 1.364 – ISI Thomson) Citations :10**
4. Praveen R.P., Ravichandran M.H et.al, “*Design and Analysis of Zero Cogging Brushless DC Motor for Spacecraft Applications ”*, ECTI Transactions on Electrical Engineering, Electronics and Communications, vol.9, no.1,February 2011, pp.113-120. **Citations :23**
5. Dr. Ahmed Galal Abo-Khalil , Dr. Youcef Berrouche , Dr. El Manaa Barhoumi,

Dr. M.A.Baseer, Dr.Praveen R.P and Dr. Ahmed-Bilal Awan, " Low-cost PMSG Topology and Control Strategy for Small Scale Wind Power Generation Systems", International Journal of Engineering Sciences and Research Technology, vol.5, no.10, pp. 585-592, October 2016. **Citations :2**

[6] M.A.Baseer, Dr.Praveen R.P, Dr.A.Galal, Dr.Youcef, Dr.Manaa,"Localisation of faults using travelling wave theory based on multi-end system", International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, no. 17 (2017) pp. 6504-6513

[7] Greeshma Chandran, Sandip Das, Dr.Praveen R.P," Design and Development of Control Electronics for Space Rover Hip Yaw Joint Application", International Journal of Applied Engineering Research, vol.12, no.22(2017), pp.12108-12118.

[8] Praveen R.P., M.A.Baseer et.al, "Performance Analysis and Optimization of a Parabolic Trough Solar Power Plant in the Middle East Region", Energies 2018, 11(4), 741.**(ISI Impact Factor : 2.707) Citations :17**

[9] Ahmed Bilal Awan, Muhammad Zubair, Praveen R. P. and Ahmed G. Abokhalil, ‘Solar Energy Resource Analysis and Evaluation of Photovoltaic System Performance in Various Regions of Saudi Arabia’,  Sustainability 2018, 10, 1129. **(ISI Impact Factor : 2.592) Citations : 19**

[10]Muhammad Zubair, Ahmed Bilal Awan, Praveen R. P., “Analysis of photovoltaic arrays efficiency for reduction of building cooling load in hot climates”,Building Services Engineering Research and Technology 2018, SAGE Publications, doi :0143624418780633 (**ISI Impact Factor : 1.1) Citations :6**

**[11] Praveen R.P.,**“Performance Analysis and Optimization of Central Receiver Solar Thermal power plants for utility scale ”,Sustainability 2020, 12(1), 127, <https://doi.org/10.3390/su12010127> **(ISI Impact Factor : 2.592)**

**[11]** Ahmed Bilal Awan, Muhammad Zubair, **Praveen R. P.,** A.R.Bhatti, “Design and Comparative Analysis of photovoltaic and Parabolic Trough based CSP Plants ”, Solar Energy, 183, 551-565 **(ISI Impact Factor : 4.674) Citations : 5**

**[12]** Muhammad Zubair, Ahmed Bilal Awan, **Praveen R. P.,“**Solar Energy Export Prospects of Kingdom of Saudi Arabia”, Journal of Renewable and Sustainable Energy,11, 2019, 1-9 **(ISI Impact Factor : 1.511) Citations :1**

**[13]** MM Salah, AG Abokhalil, **RP Praveen,** Wind Speed Characteristics and Energy Potential for Selected Sites in Saudi Arabia**”,** Elsevier Journal of King Saud University-Engineering Sciences, 2019 ISSN: 1018-3639. **Cite Score :3.60**

**[14]** Ahmed G Abo-Khalil, Ali S Alghamdi, Ali M Eltamaly, MS Al-Saud, **Praveen R.P**, Khairy Sayed, GR Bindu, Iskander Tlili, “ Design of State feedback current controller for fast synchronization of DFIG in Wind Power Generation Systems”, Energies 2019, 12, 2427. http://dx.doi.org/10.3390/en12122427 **(ISI Impact Factor : 2.707) Citations :**

**[15]** Iskander Tlili, M Osman, EM Barhoumi, I Alarifi, Ahmed G Abo-Khalil, **RP Praveen**, Khairy Sayed, “Performance Enhancement of a humidification-dehumidification desalination system”, Journal of Thermal Analysis and Calorimetry 2019, <https://doi.org/10.1007/s10973-019-08775-8> **(ISI Impact Factor : 2.471)**

**[16]** A. Al-Ahmadi, YM Qasaymeh, **Praveen R.P,** and A. Alghamdi," Bayesian Approach for Indoor Wave Propagation Modeling," Progress In Electromagnetics Research , Vol. 83, 41-50, 2019. **(ISI Impact Factor : 2.322)**

**International Conference Papers**

[1] Praveen R.P., Ravichandran M.H, Sadasivan Achari V.T., Dr.Jagathy Raj V.P. ,

Dr.G.Madhu., Dr.G.R.Bindu; “*Design and Finite Element Analysis of Hybrid Stepper*

*motor for Spacecraft Applications”*, Proceedings of IEEE International Electric

Machines and Drives Conference (IEMDC) ,Miami, U.S.A, May. 2009, Page(s):

1051-1057. **(Number of Citations : 23)**

[2] Praveen R.P. ,Ravichandran M.H,et.al; “*Design and Analysis of Zero Cogging Brushless DC motor for Spacecraft Applications”*, Proceedings of IEEE International ECTI-CON 2010 Conference ,Chiang Mai, Thailand, May. 2010, Page(s):254 -258. **(Number of Citations : 20)**

[3] Praveen R.P., Ravichandran M.H et.al; “*Design and Analysis of Enclosed Rotor Halbach Array Brushless DC Motor for Spacecraft Applications”*, Proceedings of IEEE International Conference on Electrical Machines (ICEM), Rome, Italy, September. 2010, pp.1-6. **(Number of Citations : 11)**

[4] Praveen R.P., Ravichandran M.H et.al; “*A Novel Slotless PMBLDC Motor for precise positioning Applications”*, Proceedings of IEEE International Conference on Communication, Control and Computing Technologies (ICCCCT), Kanyakmari, India, October. 2010, pp.250-254.

**(Number of Citations : 2)**

[5] Praveen R.P., Ravichandran M.H et.al; “*Optimal Design of a Surface Mounted Permanent-Magnet BLDC Motor for Spacecraft Applications”*, Proceedings of IEEE International Conference on Emerging Trends in Electrical and Computer technology (ICETECT), Kanyakumari, India, March. 2011, pp.413-419.

**(Number of Citations : 4)**

[6] Ajeesh K.P., Ashis.R, Mary Helna, Nidheesh.K, Sreedevi C.R., Praveen R.P.; “*A Novel Fuzzy Logic Controller based Automatic Caution Order System for Indian Railways”* Proceedings of IEEE International Conference on Advanced Communication, Control and Computing Technologies (ICACCCT 2012), Ramanathapuram, Tamilnadu, pp.248-253, August 2012.

[7] Veena V.S., V.T. Sadasivan Achari, Ravichandran M.H and Dr.Praveen R.P..; “Vector Control of three phase PMSM drive using power transformations for future Spacecraft Applications”, Proceedings of IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT'2014), pp.313-319,TamilNadu, India, March 2014 . **(Number of Citations : 5)**

[8] Vishnu Keloth, Muhammed Mijas, Manu P.A, Paul Thomas, Vishnu M Menon and Dr.Praveen R.P..; “*Analysis of Cogging Torque Reduction Techniques of a Slotless PMBLDC Motor”*, Proceedings of IEEE International Conference on Magnetics, Machines and Drives (AICERA-2014 iCMMD), pp. 1-6, Kerala, India, June 2014 .

**(Number of Citations : 6)**

[9] Greeshma Chandran, Sandip Das, Dr.Praveen R.P..; “Development of Control Electronics of a PMBLDC Motor for an Autonomous Rover Application in Space”, Proceedings of IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT'2014), pp.313-319,TamilNadu, India, March 2014. **(Number of Citations : 1)**

[10] Greeshma Chandran, Sandip Das, Dr.Praveen R.P..; “*PWM based Control Electronics of a PMBLDC Motor for Hip Yaw Joint of a Space Rover Application”*, Proceedings of IEEE International Conference on Emerging Research Areas: Magnetics, Machines and Drives (AICERA/iCMMD' 2014), pp. 1-6, Kerala, India, June 2014 .

[11] K Nithya, Akhil A Balakrishnan, Dr.Praveen R.P.,"Sensorless Control of Brushless DC Motor for low speed Aerospace Applications" Proceedings of IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT'2014), pp.1060-1064,TamilNadu, India, March 2014

[12] Veena V.S. and Dr.Praveen R.P..; “*Mathematical Modeling of Advanced PMBLDC Motor Drive for Aerospace Applications”*, Proceedings of IEEE International Conference on Magnetics, Machines and Drives (AICERA-2014 iCMMD), pp. 1-5, Kerala, India, June 2014 .**(Number of Citations : 2)**

[13] Praveen R.P., M.A Baseer, "Design, Performance Analysis and Optimization of a 100MW Concentrated Solar Power Plant with Thermal Energy Storage, Accepted Paper with 2018 IEEE Internal Conference on Current Trends towards Converging Technologies", 1-3 March 2018, Coimbatore, India.

**National Conference Papers**

[1] Praveen R.P. ,Sadasivan Achari V.T., Ravichandran M.H., Dr.Bindu G.R.; *“Design and Analysis of Hybrid Stepper motor using Finite Element Analysis”*', Proceedings of 31st National Systems Conference , December. 2007, Page(s): 87 -88.

[2] Praveen R.P., Ravichandran M.H., Dr.Bindu G.R.; “*Improved Design and Performance optimization of Hybrid Stepper motor for Spacecraft Applications”*', Proceedings of 20th Kerala Science Congress , January. 2008, Page(s): 407-410.

[3] Praveen R.P., Ravichandran M.H., Dr.Bindu G.R.; “*Design and Analysis of Hybrid Stepper motor for Spacecraft Applications”*, Proceedings of 8th National Conference on Technological Trends , December. 2007, Page(s): 71-75.

[4] Nithya.K., Akhil Balakrishnan, Dr.Praveen R.P..; “*Sensorless Control of PMBLDC motor for low speed aerospace Applications”*, Proceedings of National Conference on Renewable Energy conducted by IEI Kochi local centre and SNG College of Engineering and Technology , November. 2013.

[5] Greeshma Chandran, Sandeep Das, Dr.Praveen R.P..; “*Design of Control Electronics of PMBLDC Motor for Autonomous Rover Applications in Space”*, Proceedings of National Conference on Renewable Energy conducted by IEI Kochi local centre and SNG College of Engineering and Technology , November. 2013.

[6] Veena V.S., M H Ravichandran, V T Sadasivan Achari and Dr.Praveen R.P..; “*Mathematical Modelling of a Permanent Magnet Synchronos Motor Drive for Space Applications”*, Proceedings of National Conference on Renewable Energy conducted by IEI Kochi local centre and SNG College of Engineering and Technology , November. 2013.

[7] Nithya.K., Akhil Balakrishnan, Dr.Praveen R.P..; “*Sensorless Control of PMBLDC motor for low speed aerospace Applications”*, Proceedings of 26th Kerala Science Congress, Wayanad, Kerala, January 2014.

[8] Greeshma Chandran, Sandeep Das, Dr.Praveen R.P..; “*Design of Control Electronics of PMBLDC Motor for Autonomous Rover Applications in Space”*, Proceedings of 26th Kerala Science Congress, Wayanad, Kerala, January 2014.

[9] Veena V.S., M H Ravichandran, V T Sadasivan Achari and Dr.Praveen R.P..; “*Mathematical Modelling of a Permanent Magnet Synchronos Motor Drive for Space Applications”*, Proceedings of 26th Kerala Science Congress, Wayanad, Kerala, January 2014.

**Seminars Presented**:

1. Analysis of End Effect in Double Sided Linear Induction Motor and its effect on

Rotary Machines.

1. Linear Generators for Direct Drive Power take-off in AWS.
2. Familiarization of Maxwell Software Packages
3. Introduction to Finite Element Analysis

**Project Work:**

**Research Work (Ph.D) : Design, Analysis and Realization of Zero Cogging Permanent-Magnet Brushless DC Motor for Spacecraft Applications (A live project of ISRO-**Indian Space Research Organization).

Main Project: Design and Analysis of Hybrid Stepper Motor for Spacecraft Applications

**(M.Tech)** was **a live project for ISRO** (Indian Space Research Organization).

Mini Project **(M.Tech)** :Modelling of a 2D Magnetostatic problem using Finite Element

Analysis.

Main Project (B.E.) : “**Electrical Scheme in NTPC Kayamkulam”** at the Electrical

Maintenance Department of NTPC Kayamkulam

**Industrial Training:**

IndustrialTraining was obtained from Indian Railways,NTPC(Kayamkulam),KEL(Kerala Electrical and Allied Engg. Co.Ltd.),IISU(ISRO Inertial Systems Unit)

**Faculty Development Programs Attended:**

1. **“Methodology for Engineering Research”** sponsored by Directorate of Technical Education and organized by Dept. of Electrical Engineering, College of Engineering, Trivandrum during 15-17 November 2012.
2. **“Emerging Trends in Power Electronics and Systems”** sponsored by ISTE and organized by Dept. of Electrical Engineering, Jyothi Engineering College, Thrissur during 1-3 February 2012.
3. **“Emerging Trends in Power Systems and Mi Power Applications”** sponsored by ISTE and organized by Dept. of Electrical Engineering, Mar Baselios College of Engineering, Trivandrum during 21-25 November 2011.
4. **“Enhancing Career Prospects through self-development”** sponsored by TEQIP and organized by Dept. of Civil Engineering, College of Engineering, Trivandrum during 15-16 September 2006.

**Membership in Professional Bodies:**

1. Associate Member of Institution of Engineers (India) **(IE)** : AM100385-5
2. Life Member of Indian Society of Technical Education **(ISTE)** : LM-44816
3. Life Member of Energy Conservation Society **(ECS)** : 2395

**Personal Details:**

Name : Dr. Praveen.R.P

Father’s Name : S.Raveendran Nair

Date of Birth : 08-02-1982

Sex : Male

Linguistic Capability : English,Malayalam,Hindi,Tamil

Interests : Reading, Sports

Nationality : Indian

Permanent Address : Pravitha Bhavan , T.C-19/1638-7,

Thamalam,Poojappura P.O,

Trivandrum , Kerala.Pin:695012.

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Phone : +91-471-2346839 (India), Mobile : +966 559851412.

: 09447796839 (India)

E-mail : praveen.r@mu.edu.sa or pravi\_8200@yahoo.co.in

I hereby declare that the above written particulars are true to the best of my

knowledge and belief.

Place: Majmaah, Saudi Arabia

Date : 22-2-2020 (Dr.Praveen.R.P)