

CURRICULUM VITAE

Dr. Heramb Prabhakar Gaikwad [M.Sc., Ph.D. (Physics)]

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: herambgaikwad01@gmail.com



Blog

: <https://astrophilehpg.blogspot.com/>



YouTube Channel

: <https://youtube.com/@herambgaikwad3365>



Google Scholar

: [Google citations, h-index & i10-index](#)



1. Personal Information:

Name : Dr. Heramb Prabhakar Gaikwad
Date of Birth : 13th March 1990
Birth Place : Belgaum, Karnataka, India
Marital Status : Single.
Languages Known : Marathi, English and Hindi.
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Permanent Address : Gothan Galli, Near Ram Mandir, Miraj.
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State: Maharashtra, India
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2. Academic Details:

Sr. No.	Course	Year	University / Board	Marks Obtained (%)
1.	Ph.D. (Physics)	2019	Shivaji University, Kolhapur	Awarded
2.	M.Sc. (Physics)	2013	Shivaji University, Kolhapur	60.21
3.	B.Sc. (Physics)	2011	Shivaji University, Kolhapur	69.12

3. Research / Fellowship / Research Training Program:

Sr. No.	Research	Title of Work / Thesis	University / Institute	Date of Award
1.	Ph.D.	STUDY OF DYNAMICS OF MESOSPHERE OVER LOW LATITUDE INDIAN REGION BY MEDIUM FREQUENCY RADAR	Shivaji University Kolhapur	25.02.2019
2.	PDF (Research Associate)	Study of Tropical Meteorology	Indian Institute of Tropical Meteorology Pune	08.04.2019

4. Experience:

Sr. No.	Name of Organization	Duration
1.	Jaysingpur College, Jaysingpur	07-07-2014 to 14-03-2015
2.	Willingdon College, Sangli	2014 to 2015
3.	Shikshanmaharshi Dr. Bapuji Salunkhe College, Miraj	25-06-2018 to 30-06-2022
4.	Kisan Veer Mahavidyalaya, Wai	08-08-2022 to Till Today

5. Orientation / Refresher / Short Term Courses Completed:

Sr. No.	Course	Duration	University / Institute
1	Advances in Monitoring and Modelling of Hydro-Meteorological Hazards using Geospatial Technology and Process based Models	05-12-2022 To 09-12-2022	ISRO's Indian Institute of Remote Sensing
2	Short Term Training Program	18-05-2020 To 22-05-2020	Department of Electronics Engineering, Ramrao Adik Institute of Technology, Nerul, Navi Mumbai
3	Short Term Training Program	08-06-2020 To 12-06-2020	Department of Instrumentation Engineering, Ramrao Adik Institute of Technology, Nerul, Navi Mumbai
4	Refresher Course	05-04-2021 To 10-04-2021	G H Rasoni College of Engineering & Management, Pune
5	Refresher Course	03-05-2021 To 08-05-2021	G H Rasoni College of Engineering & Management, Pune

6. Knowledge and Skill:

- Designing and development of an antenna
- MATLAB programming
- Python
- C & C++ Languages
- MSCIT and CCC

7. Hobbies:

- a) Stargazing (Astronomy) c) Playing outdoor games
b) Reading Books d) Travelling

8. Awards and honours:

Sr. No.	Fellowship / Award	Year	International / National	Awarding Academic Body / Association
1.	Best Research Presentation Award	2021	National	One Day National Web Conference on “Emerging Trends in Science, Technology and Smart Computing” on 5 th March 2021 at Willingdon College Sangli
2.	Member of Student Council (Tourism Ministry of College)	2009	College	Shikshanmaharshi Dr. Bapuji Salunkhe College, Miraj

9. Research Experience:

- a) I have completed my master’s degree project (2012-13) entitled ‘*Synthesis of MnO₂ by Hydrothermal Method for Supercapacitor Application*’ under the guidance of Prof. (Dr.) P. S. Patil Sir in Department of Physics, Shivaji University, Kolhapur.
- b) I have completed my doctoral studies in Dept. of Physics Shivaji University Kolhapur under the guidance of Prof. (Dr.) A. K. Sharma Sir. The topic of my research is ‘*Study of Dynamics of Mesosphere over Low Latitude Indian Region by Medium Frequency Radar*’. I have been awarded with Ph.D. Degree in Physics by Shivaji University Kolhapur on 25th February 2019. *I have 9 years and 7 month of research experience in the field of Space Science and 11 research article in international peer reviewed journals and 03 in national journal.* I have work experience of handling radio instrument during my PhD.

10. Research Collaborations:

- 1) National Atmospheric Research Laboratory (NARL), Gadanki, Aadhra Pradesh.
- 2) Indian Institute of Geomagnetism (IIG), Navi Mumbai, Maharashtra.
- 3) Indian Institute of Tropical Meteorology (IITM), Pune, Maharashtra.

11. Post-Doctoral Research Experience:

I have worked as a Research Associate at Indian Institute of Tropical Meteorology (IITM), Dr. Homi Bhabha Road, Pashan, Panchawati, Pune, Maharashtra 411008.

12. Google Scholar Citations and h-index:

Citations : 95

h-index : 07

i10-index : 05

Google Scholar: <https://scholar.google.com/citations?user=lpz4VeUAAAAJ&hl=en>

Scopus Preview: <https://www.scopus.com/authid/detail.uri?authorId=57191878719>

13. Creation of ICT mediated Teaching Learning pedagogy and content and development of new and innovative courses and curricula

(a) Development of Innovative pedagogy

Sr. No.	Name of e - Content	Link
1.	Personal YouTube Channel	https://youtube.com/@herambgaikwad3365
2.	Departmental YouTube Channel	https://youtube.com/@departmentofphysicsmdbscm1777
3.	Blog	https://astrophyhpg.blogspot.com/
4.	Google Classrooms	a) B.Sc.- I – Class Code- bcktj2h b) B.Sc.- II– Class Code- a543qso c) B.Sc.- II– Class Code- x2aejqh
5.	Google Forms	a) Public Awareness Questionnaire on viral spread of Pandemic COVID-19 https://forms.gle/CKCNGNxepWR8SHdT6 b) Questionnaire on Celebration of 51 Glorious years of ISRO Foundation https://forms.gle/yQsPregBfysBHCNh9 c) Quiz competition on the occasion of An International Astronomy Day Celebration https://forms.gle/i9uUhGJvGsb11BAAd6 d) Questionnaire on World Environment Day (WED) 2020 https://forms.gle/c92V1hz7YgAGXEEAA

(b) Design of new curricula and courses

Sr. No.	Design of new curricula /courses
1.	Skill Development Course in “ <i>Design of Solid-State Amplifier</i> ”
2.	Certificate course in Design and develop a “ <i>Yagi Uda Antenna</i> ”
3.	Certificate course in “ <i>Programming with MATLAB</i> ”

14. Research Project Completed:

Sr. No.	Title	Sanctioned Year	Agency	Year of Completion	Whether PI/ Co-PI	Grant
1	To install and operate the Super-SID Space Weather monitor for coordinated solar studies over tropical Indian stations Wai (17.95° N, 73.89° E) and Miraj (16.82° N, 74.65° E)	April 2023	Stanford University, Stanford, California US	On Going	PI	Gifted
2	To install and operate the Super-SID Space Weather monitor for solar studies over tropical Indian station Miraj (16.82° N, 74.65° E)	December 2019	Stanford University, Stanford, California US	January 2020	PI	Gifted
3	To install and operate Radio Jove 2.0 for Earth, Sun, Jupiter and Galaxy originated radio waves	September 2023	NASA	Undergoing	PI	Gifted

15. Observation of Astronomical Events organized:

Sr. No.	Name of Event	Date
1.	International Space Station (ISS): ZARYA	i. 10 th & 11 th April 2020 ii. 10 th June 2020 iii. 09 th April 2021
2.	Hubble Space Telescope (HST)	16 March 2021
3.	Zero Shadow	07 May 2020
4.	Milk Moon	07 May 2020
5.	Lunar Eclipse	06 June 2020
6.	Solar Eclipse	21 June 2020
7.	Jupiter and Saturn Conjunction	21 December 2020
8.	Moon and Mars occultation	17 April 2021
9.	Super Pink Moon	27 April 2021
10.	Zero Shadow https://youtu.be/5McwUInIXH8	07 May 2021
11.	Zero Shadow	07 May 2022
12.	Lunar Eclipse	08 November 2022

16. (a) Duties performed in college in addition to teaching:

1. Working as a *Member of NAAC Criteria- IV*.
2. Worked as **Shivaji University ‘AAA’ Committee Member** [College got ‘A’ grade].
3. Working as a *Member of B.Sc.- I Admission Committee since 2019-20*.
4. Worked as *an Organizing Committee Member* during *One Day National Webinar on “Astronomy (सफर विश्व की)”* on 22nd February 2021.
5. Worked as a Co-coordinator of *Skill Development Certificate Course in “Design of Solid State Amplifier”* during 1st September to 31st December 2018.

16. (b) Activities / Events organized for students:

1. **An Online Quiz Competition** on the occasion of **“International Astronomy Day”** on 15th May 2021.
2. **One Day National Webinar on “Astronomy (सफर विश्व की)”** on 22nd February 2021.
3. **An Online Quiz Competition** on the occasion of **“World Environment Day”** on 5th June 2020.
4. Questionnaire on **“Celebration of 51 Glorious years of ISRO Foundation”** on 15th August 2020.
5. **An Online Quiz Competition** on the occasion of **“International Astronomy Day”** on 2nd May 2020.
6. **“Public Awareness Week”** by sharing **an online Quiz on Pandemic COVID-19** on 20-30th April 2020.
7. Worked as a **“Team Administrator”** of students participated in **‘Start-up Competition’** organized by Vivekanand College, Kolhapur on 31st January 2020.
8. Worked as a **“Team Administrator”** of students participated in **‘Innovative Research Ideas Competition’** organized by Vivekanand College, Kolhapur on 31st January 2020, which got **IInd Prize**.
9. **“Two Day Poster Presentation”** on 12-13th April 2022.
10. **“Two Day Science Exhibition”** on 10-11th January 2020.
11. **“Two Day Poster Presentation”** on 10-11th October 2019.

17. Guest Lecture / Expert Talk Delivered:

Sr. No.	Title of Lecture	Date	Organized by
1.	<i>Quantum Physics</i>	26-03-2021	Dept. of Basic Sciences and Humanities, Sanjay Bhokare Group of Institutes, Miraj
2.	<i>Solar and Lunar Eclipse: Conception-Misconception</i>	07-11-2022	Dept. Physics, Kisan Veer Mahavidyalaya Wai
3.	<i>Global Science for Global Wellbeing</i>	28-02-2023	Dept. of Chemistry, Kisan Veer Mahavidyalaya Wai

18. Research Publications:

A] Research Articles Published in Conference, Proceedings, Book Chapters etc.,:

Sr. No.	Title of Article, Authors, DOI, etc.	Name of Journal
1.	<p><i>“Variation in zonal drift velocity of equatorial plasma bubbles (EPBs) over Kolhapur (16.8°N, 74.2°E; 10.6°N dip lat.)”</i></p> <p>A. K. Sharma, O. B. Gurav, S. Gurubaran, G. A. Chavan, D. P. Nade, H. P. Gaikwad, R. N. Ghodpage, P. T. Patil and S. S. Nikte</p> <p>ISBN No. 978-93-5212- 826-6</p>	<p>Proceedings of the Emerging Trends in Basic and Applied Sciences (ETBAS), Karmaveer Hire Arts, Science, Commerce and Education College, Gargoti</p>
2.	<p><i>“Foremost observations of space weather using Super-SID from low latitude station Miraj (16.82° N, 74.65° E, 8.80° dip. Lat)”</i></p> <p>H. P. Gaikwad, J. L. Bhosale*, K. K. Powar</p> <p>ISBN No. 978-81-948061-2-7</p>	<p>PROGRESSION IN SCIENCE, TECHNOLOGY AND SMART COMPUTING, Willingdon College Sangli</p>
3.	<p><i>“Diurnal, Monthly and Seasonal Variation in TEC using GPS data over Low Latitude station Hyderabad (17.3850° N, 78.4867° E & geo-mag. 8.79° N)”</i></p> <p>K. K. Powar, H. P. Gaikwad, J. L. Bhosale*</p> <p>ISBN No. 978-81-948061-2-7</p>	<p>PROGRESSION IN SCIENCE, TECHNOLOGY AND SMART COMPUTING, Willingdon College Sangli</p>

B] Research Articles Published in Peer Reviewed Journals:

Sr. No.	Title of Article, Authors, volume, issue, page No., year, DOI, etc.	Name of Journal	Impact Factor
1.	<p><i>“The day-to-day variability in the Mesosphere and Lower Thermosphere in low latitudes: A study using MF radar”</i></p> <p>H. P. Gaikwad, S. Fadnavis, O. B. Gurav, J. L. Bhosale, A. K. Sharma, P. T. Patil, R. N. Ghodpage, M. M. Sutar, G. A. Chavan, A. T. Birajdar, D. J. Shetti</p> <p>Volume 71, Pages 199-215, 2023</p> <p>DOI: 10.1016/j.asr.2022.08.066</p>	<p>Advances in Space Research (ASR)</p>	<p>2.611</p>

2.	<p><i>“Seasonal, annual and interannual variability in MLT Quasi Two Day Waves over low latitude region Kolhapur (16.8° N; 74.2° E)”</i></p> <p>H. P. Gaikwad, A. K. Sharma, O. B. Gurav, G. A. Chavan, D. P. Nade, P. T. Patil, S. S. Nikte, G. P. Naniwadekar.</p> <p>Volume 63, Issue 7, 1 April 2019, Pages 2100-2117, 2019. DOI: 10.1016/j.asr.2018.12.029</p>	<p><i>Advances in Space Research (ASR)</i></p>	<p>2.611</p>
3.	<p><i>“Diurnal, monthly and seasonal variation of mean winds in the MLT region observed over Kolhapur using MF radar”</i></p> <p>A. K. Sharma, H. P. Gaikwad*, M. Venkat Ratnam, O. B. Gurav, L. Ramanjaneyulu, G. A. Chavan, S. Sathishkumar.</p> <p>Volume 169, Pages 91-100, 2018. DOI: 10.1016/j.jastp.2018.01.028</p>	<p><i>Journal of Atmospheric and Solar- Terrestrial Physics (JASTP)</i></p>	<p>2.119</p>
4.	<p><i>“Airglow imaging observations of some evolutionary aspects of equatorial plasma bubbles from Indian sector”</i></p> <p>O. B. Gurav, V. L. Narayanan, A. K. Sharma, R. N. Ghodpage, H. P. Gaikwad, P.T. Patil.</p> <p>Volume 64, Issue 2, Pages 385-399, 2019. DOI: 10.1016/j.asr.2019.04.008.</p>	<p><i>Advances in Space Research (ASR)</i></p>	<p>2.611</p>
5.	<p><i>“Potential of IRNSS/ NavIC L5 Signals for Ionospheric Studies”</i></p> <p>A. K. Sharma, O. B. Gurav, Anindya Bose, H. P. Gaikwad, G. A. Chavan, Atanu Santra, S. S. Kamble, R. S. Vhatkar.</p> <p>Volume 63, Issue 10, Pages 3131-3138, 2019. DOI: 10.1016/j.asr.2019.01.029</p>	<p><i>Advances in Space Research (ASR)</i></p>	<p>2.611</p>
6.	<p><i>“Zonal drift velocity of Equatorial Plasma Bubbles during ascending phase of 24th solar cycle using All Sky Imager over Kolhapur, India”</i></p> <p>O.B. Gurav, A.K. Sharma, R.N. Ghodpage, D.P. Nade, G. A. Chavan, H. P. Gaikwad, P. T. Patil.</p> <p>Volume 123, Issue 12, Pages 10266-10282, 2018. DOI: 10.1029/2018JA025810</p>	<p><i>Journal of Geophysical Research: Space Physics</i></p>	<p>4.261</p>

7.	<p><i>“Variation in occurrence of equatorial plasma bubbles (EPBs) using All Sky Imager from low latitude station Kolhapur (16.8° N, 74.2° E, 10.6° dip. Lat.)”</i></p> <p>A.K. Sharma, O. B. Gurav, G. A. Chavan, H. P. Gaikwad, R. N. Ghodpage, P. T. Patil.</p> <p>Volume 60, Issue 11, Pages 2452–2463, 2017</p> <p>DOI: 10.1016/j.asr.2017.09.014</p>	<p><i>Advances in Space Research (ASR)</i></p>	<p>2.611</p>
8.	<p><i>“Study of ionospheric irregularities from Kolhapur (16.4°N, 74.2°E)”</i></p> <p>A.K. Sharma, G.A. Chavan, H. P. Gaikwad, O.B. Gurav, D. P. Nade, S. S. Nikte, R. N. Ghodpage, P. T. Patil.</p> <p>Volume 169, Pages 16-22, 2018</p> <p>DOI: 10.1016/j.jastp.2017.12.019</p>	<p><i>Journal of Atmospheric and Solar-Terrestrial Physics (JASTP)</i></p>	<p>2.119</p>
9.	<p><i>“Study of equatorial plasma bubbles using all sky imager and scintillation technique from Kolhapur station: a case study”</i></p> <p>A.K. Sharma, O.B. Gurav, H. P. Gaikwad, G.A. Chavan, D.P. Nade, S.S. Nikte, R.N. Ghodpage, P.T. Patil.</p> <p>Volume 363, Issue 83, 2018</p> <p>DOI: 10.1007/s10509-018-3303-4</p>	<p><i>Astrophysics and Space Science</i></p>	<p>1.83</p>
10.	<p><i>“Dynamics of ionospheric irregularities in increasing phase of 24th solar cycle at Kolhapur [16.4° N, 74.2° E]”</i></p> <p>A. K. Sharma, G. A. Chavan, O.B. Gurav, H. P. Gaikwad, R.N. Ghodpage, D.P. Nade</p> <p>Volume 60, Issue 10, Pages 2195–2205, 2017</p> <p>DOI: 10.1016/j.asr.2017.08.002</p>	<p><i>Advances in Space Research (ASR)</i></p>	<p>2.611</p>
11.	<p><i>“Dependence of coherence scales of ionospheric scintillation patterns on magnetic activity”</i></p> <p>G. A. Chavan A. K. Sharma, O. B. Gurav, H. P. Gaikwad, D. P. Nade, S. S. Nikte, R. N. Ghodpage and P. T. Patil.</p> <p>Volume 32, Pages 59-65, 2017</p> <p>DOI: 10.1007/s12647-016-0191-3</p>	<p><i>MAPAN-Journal of Metrology Society of India</i></p>	<p>1.44</p>

19. Research Papers / Posters presented in National and International Conferences, Workshops and Seminars etc.:

Sr. No.	Title of the National and International Conferences, Workshops and Seminars	Remark
1.	<i>One Day National Web Conference on ‘Emerging Trends in Science, Technology and Smart Computing (ETSTSC-2021)’</i> , held on 05 th March 2021, organized by Department of Physics, Electronics and Computer Science, Willingdon College Sangli.	Presented a paper & won Best Research Presentation Award
2.	<i>“International Web Conference on Science, Engineering and Technology IWCSET-2020”</i> , held during 15-16 th May 2020.	Participated
3.	<i>“15th International Symposium on Equatorial Aeronomy”</i> held during 22-26 th October, 2018 at the Physical Research Laboratory, Ahmedabad, India.	Presented a Poster
4.	<i>“Workshop on Satellite Navigation & applications of GNSS/NavIC”</i> , held during 5-6 th April 2018 at National Atmospheric Research Laboratory, Gadanki.	Completed Successfully
5.	<i>“International conference on Crystal Ball Vision on Science & Engineering for Social Upliftment”</i> , held during 7-8 th August 2017 at CSIR- National Institute of Oceanography, Goa, India.	Presented a Poster
6.	<i>“The First user scientists Workshop on the Applications of Stratosphere Troposphere Wind Profiler Radar”</i> , held during 9-10 th February 2017 at Advanced Center for Atmospheric Radar Research, Cochin.	Completed Successfully
7.	<i>“National Space Science Symposium- 2016”</i> held during 9-12 th February 2016 at Space Physics Laboratory (SPL), Trivandrum.	Presented a poster
8.	<i>“2nd URSI- Regional Conference on Radio Science–2015”</i> held during 16-19 th November 2015 at Jawaharlal Nehru University, New Delhi, during.	Presented a paper

Declaration:

I hereby declare that all the contents mentioned above are true and correct to the best of my knowledge and belief and I undertake to inform you of any changes therein, immediately.

Thanking you,

Place: Miraj

Date: 16.03.2024

Dr. Heramb P. Gaikwad