

Dr. Ms. Raka Vasant Dabhade

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Personal Details:-

Name	Dabhade	Raka	Vasant
	<i>SURNAME</i>	<i>FIRST NAME</i>	<i>MIDDLE NAME</i>
Department	Physics		
Designation	Asso. Prof.		
Qualification(s)	M.Sc. Ph.D.		
Certification(s)/Professional Courses/Exams	-----		
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Member Of:-

College Committees	Other Committees
Library committee Fergusson College	Bharatiya Vidya Bhavans Mukhtangan Exploratory Advisory Board
Co-ordinator- IUCAA Node for Astronomy and Astrophysics Development - INAAD	Co-ordinator- National Graduate Physics Examination center in charge.

Research Done: Projects Undertaken

1. ISRO- FM Radio for meteor shower observations- Rs. 3.25 laks , Completed
2. ISRO _ Visual meteor shower observations – Rs. 5 laks ,Completed
3. BCUD – Use of HAM radio for meteor shower observations. Rs.2.5 laks, Completed
4. ISRO – Fergusson College Observatory, an autonomous robotic telescope. Rs. 11 laks Completed
5. IAU – TARA Observatory, Euros 4,500/- ongoing
6. UGC - User of Virtual Observatory for variable star observations Rs. 1.5 laks ongoing
7. BCUD – Fabrication of Celeostat for Solar observations Rs. 1.8 laks, ongoing

Area of Interest in Research:

1. Astronomy and Astrophysics
2. Atmospheric and Space sciences
3. Materials Science – sensors

Books Published: N.A.

Research publications:

Research Publications: Restricted to Ten

1. **Raka Dabhade**, C.D.Lokhande and S.H.Pawar, “Electrode position of CdSe and CdSeTe films and their performance in electrochemical photovoltaic cells”. Bulletin of Electrochemistry 7(7) July, (1991), p.319-323.
2. Yermune, **Raka Dabhade**, C.D.Lokhande and S.H. Pawar, “Studies on Electrodeposited Cadmium Chalcogenides”, Physics Teacher, April-June, (1988), p.154-158.
3. **Patil S.I. and Dabhade R.V.** “Magnetic Domain behavior of Cu and Co spinel Ferrite system”, IEEE Transaction vol.30, Issue6, Nov.(1994) p.4915-17.
4. **Dhananjay S.Bodas, Raka Dabhade, Sheetal Patil and S.A. Gangal**, “Comparative study of Spin coated and sputtered PMMA as an etch mask for Silicon micromachining”, Proc. IEEE, MHS (2001) 51-56.
5. **Dhananjay S.Bodas, Raka Dabhade, Sheetal Patil and S.A. Gangal**, “PMMA as an etch mask for Silicon Micro machining”, a feasibility study. Journal of Indian Institute of Science,81/6 (2001) 645.
6. **Makrand Risbud, Raka Dabhade, S.A. Gangal and R.R. Bonde**, “Radio frequency plasma treatment improves the growth and attachment of endothelial cells on poly-methyl metharylate) substrate” : implication in tissue engineering. Journal of Biomaterial Science –Polymer Edition, 13-10 (2002) 1067-80.
7. **R.V.Dabhade, Dhananjay Bodas and S.A. Gangal** “Plasma treated polymer as a humidity sensing material a feasibility study. Sensors and Actuators B,98 (2004) 37-40.
8. **R.V.Dabhade & Vaibhav Savant**, “Meteor observations from the Indian Sub-continent” Proceedings of the International Meteor Organization, 2010.
9. **R.V. Dabhade**, Dhaval Pranjape & Yogita Kamble, “DSLR Photometry for Variable Star observations.” Proceedings of NSPTS-18, 2014.
10. **Chetan Thakur & R.V. Dabhade** “Virtual Observatory for plotting Variable Star light curves.” Proceedings of NSPTS-18, 2014.

Seminars and Workshops Attended:-

International Conferences /Workshops attended:

1. International Meteor conference, Armagh Observatory, Northern Ireland UK. Sept. 2010.
2. International Heliophysical year workshop, “Super active regions of solar cycle 23 and their Geo space impact”, May 7-10, 2007, Aryabhata Research Institute of observational Sciences, (ARIES) Nainital.

3. International Conference on “Challenges for Solar Cycle-24”, January 22-25, 2007, Physical Research Laboratory, (PRL), Ahmadabad.
4. Indo-Russian Workshop on Micromechanical Systems National Physical Laboratory (NPL), New Delhi, (1999).
5. International workshop on recent trends in Sensor development, IIT Kharagpur, (1997).
6. International workshop in corrosion and surface treatments, IIT Powai, Mumbai (1995).
7. Indo-US workshop on Photonics, Pune (1993).

National Conferences / Symposia / Workshops attended : 31

1. National Conf. on Ancient Sci and Technology Retrospection and Aspirations ASTRA 2015, Fergusson College, Pune Jan. 2015.
2. National Photometer fabrication workshop IUCAA, Sept. 2014.
3. National Seminar on Physics and Technology of Sensors, NSPTS, T.C. College, Baramati 2014.
4. National Conf. on Advances in Electronics and its Interdisciplinary Application , NCAEIA, Electronics dept Fergusson College, Sept. 2014
5. National Conf. on Recent Developments and Measurement Techniques in Astronomy and Astrophysics, Shahajiraje Mahavidyalaya Khatav, Jan. 2013.
6. Conf. on Autonomy to Colleges and Role of IQAC, Fergusson College, Pune Sept. 2013.
7. National Space Science Symposium, NSSS, Venkateshwara Uni. Tirupati, Feb. 2012.
8. National, IAPT convention, CUSAT, Kochi 2012.
9. National Seminar on Solar Radio Astronomy, NCRA, Pune 2011.
10. National, IAPT convention, Rajasthan University, Jaipur, 2011.
11. National Space Science Symposium, NSSS, Saurashtra, Uni. Rajkot, Feb. 2010.
12. National Conference on Recent Trends in Multifunctional Oxide Materials, Osmania Uni. Hyderabad, July 2009.
13. National Conference on Solar Eclipse 2009, Sant Gadge Baba Amravati, Uni. Amravati, June 2009.
14. National Space Science Symposium, NSSS, National Radio Astronomy Center, Ooty, 2008.
15. National Seminar on Physics and Technology of Sensors, NSPTS, Pune University, Pune March, 2006.
16. National Space Science Symposium, NSSS, Andhra University, Vishakapatnam. Feb. 2006.
17. National Symposium of Instruments Society of India, Cochin University of Science and Technology, Cochin, Oct. 2005.
18. National Workshop on working with small telescopes, IUCAA, Pune 2005.
19. National, IAPT convention, Jiwaji University, Gwalior, Oct. 2004.
20. National Seminar on Physics and Technology of Sensors, NSPTS, 10, VIT, Pune 2004.
21. National Seminar on Astronomy in the New Millennium 73rd session of the Indian Academy of sciences, PRL, Ahmadabad, 2003.
22. National Workshop on Solid State sensors, Theory and applications, Shivaji University, Kolhapur, 2003.
23. National Seminar on Promotion of Basic Sciences as a Career, Institute of engineers, Pune 2002.
24. National Symposium on Bio-materials, IIT Powai, 2001.

25. National Symposium on Physics and Technology of sensors, NSPTS-8, IGCAR, Kalppakkam 2001.
26. National, IAPT, convention, Punjab Uni, Chandigarh, 2000.
27. National Symposium on Physics and Technology of sensors, NSPTS-7, Pune University, Pune, 2000.
28. National Symposium on Physics and Technology of sensors, NSPTS-5, Pune University, Pune, 1998.
29. National Conf. on Materials in Electronics, Shivaji Uni. Kolhapur, 1996.
30. National Conf. on Biomass Energy, Shivaji Uni. Kolhapur, 1989.
31. National Seminar on Materials Sci. Central Electrochemical Research Inst. CECRI, Karikudi, 1988.

Seminars and Workshops Organized:- 18

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| 1. Two day National Seminar for students “Frontiers in Physics VIII theme –International year of Light and light based technology and 100 years of Relativity. Jan. 28 th -29 th 2015. |
| 2. Three day National seminar for students “Frontiers in Physics VII theme - Frontiers in Astronomy” in collaboration with the Inter University for Astronomy and Astrophysics (IUCAA) , Feb. 2014, (172 participants). |
| 3. Two day teachers workshop on teaching Astronomy and Astrophysics at undergraduate level in collaboration with the Inter University Center for Astronomy and Astrophysics June 2013, 27 participant teachers. |
| 4. Two day Seminar for students “Frontiers in Physics VI” Jan. 2013 (167 students). |
| 5. Three day students workshop on Astrophysics of the Black hole systems with IUCAA 4-6 th Sept. 2012 (24 students). |
| 6. One day workshop on the Transit of Venus for school children 5 th June 2012 (23 students). |
| 7. Three day National Seminar for students “Frontiers in Physics V” Jan 2012 (196 students) |
| 8. One day seminar for teachers on intellectual property rights (34 participants)..Nov 2011 |
| 9. Two day seminar “Frontiers in Physics IV” 2011,(182 participants). |
| 10. Two day seminar “Frontiers in Physics III” 2010, (178 participants). |
| 11. One day seminar for Non-teaching faculty of Fergusson College, February, 2009 (35 staff). |
| 12. Two day state level seminar for teachers and students (161 participants), |
| 13. Two day seminar “Frontiers in Physics II Theme - Astronomy” Feb. 2009 (176 students). |
| 14. Three day seminar “Frontiers in Physics I 2008 (156 students). |
| 15. Two day Telescope making workshop for 30 school children May, 2008. |
| 16. Three day seminar for students, (158 participants) “Frontiers in Physics” January, 2008. |
| 17. One day lecture series of Four lectures to celebrate International Year of Physics, 2005. |
| 18. Three day Introductory School in Astronomy and Astrophysics, 2002, for 102 students. |

Exhibitions Organized: 15

1. Mars Path Finder, 1997-1998.
2. Apollo Missions to the Moon, 1998-99.
3. Sun and the Solar Eclipse, 1999-2000.
4. Touching the Sky with glory, on the Indian Air Force, 1999-2000.
5. ISRO- Past, Present and Future, 2000-2001.
6. In the wonderland of Physics, 2001-2002.

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| <ol style="list-style-type: none">7. Close encounters with Mars, 2003-2004.8. Cassinis date with Saturn, 2004-2005.9. Hall of Relativity, to mark International Year of Physics, 2004-2005.10. Sigma Information Universe, From the Big Bang to the Big Crunch,2005-6.11. The Sun, to mark the International Heliophysical Year, 2007.12. Eyes on ISON (Comet) 2013.13. Mangalyan. Sept 201414. Eyes on the Universe, Sept 201415. Remembering “Kalam” August 2015 |
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<p>Organized public watch of : The Transit of Venus , The Annular Solar Eclipse , Total solar Eclipse, Meteor showers Lenoids and Gemenids.</p>
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<p>Invited Talks Delivered: 11</p>

Other Accomplishments:-

<p>1. Received best project guide award : R. Chandrashekar Memorial award</p>
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<p>2. Received Best Teacher Award : Uttar Bharatiya Sangh Pune</p>
