

Name of Faculty Dr. B. M. Pratima  
 Designation Asst. Professor  
 Nature of Job/Appointment Contract  
 Date of Joining 24-3-2021  
 E-mail bmrpratima\_physics@cbit.ac.in



Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy at IIT Madras (Physics)	Awarded
PG	M. Sc. (Physics)	First
UG	B. Sc. (Maths, Physics, Computer Science)	First

#### Work Experience

Teaching	14 Years
Research	8 years
Industry	--
Others	--
Area of Specialization	Condensed Matter Physics
Professional Memberships	Member, IAENG (291590) Life Member MRSI
Responsibilities held at Institution Level	--
Responsibilities held at Department Level	1. Co-Incharge WBC 2. Co-incharge, Library related activities, NIRF 3. Class Incharge
Research Guidance	-
Awards Received	Best paper award in Global Conference-RASM-2022
Courses Handled at Under Graduate / Post Graduate Level.	1. Electromagnetic theory and Quantum mechanics 2. Optics and Semiconductor Physics 3. Mechanics and Material Science
No. of Papers Published	National Journals – International Journals – 02 National Conference – International Conference – 04
Projects Carried out	1) Subrahmanyam A, <b>BM Pratima</b> "TITANIA-SILICA COATING FOR METAL SURFACES AND OPTICAL COATING APPLICATIONS" Patent No: 526956; Patent Application no. 20184103
Patents	

Technology Transfer 1. ICT e-content developed (YouTube Channel):  
<https://www.youtube.com/watch?v=N2JGrw0EThc&list=PLzkMouYverAJenXy6qlOXmjFKUjYwovkJ&pp=iAQB>

Invited Speaker

No. of Books/Chapter Published with details

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Training (**Attended and/or Organized**).

- 1) Editor for the book titled "*USEFUL PROMPTS FOR ACADEMICIANS*" Heduna Peer International Research And Reviews ISBN – 978-81-980146-7-2
1. One Day International Conference in " Novel Corona and Novel Challenges-Life ahead with Covid-19" organized by Sri Guru Gobind Singh College on 03rd June, 2020
2. Completed an online course titled" Nanotechnology-A Maker's course" by Duke University, North Carolina State University and The University of North Carolina at Chapel Hill and offered through Coursera on 28 June, 2020
3. Online Faculty Development Program on "Advanced Materials for Energy Harvesting, Conversion and Storage" organized by Department of Science and Humanities, MLR Institute of Technology, Hyderabad during 19th – 23rd June, 2020
4. National Level Five Day faculty development program on "Scilab"" in Association With IIT-Bombay (Remote Learning Through Spoken Tutorial)," from 15th - 19th June 2020.
5. Online Faculty development Program on " Online skill enhancement for Academicians" by IEEE Bangalore Section-Jain College of Engineering, Belgavi on July 8th-9th ,2020.
6. webinar on "Analytic skills for Engineers and MBAs" hosted by SKILL EDGE in association with FTPO on 26.05.2020
7. webinar titled "Beyond motivation: engaging students (online and offline) on 16.06.2020 conducted by Cambridge Assessment English
8. ACs webinar titled " ACS guide for scholarly Communication Expert advice for Early career researchers" on 27 May, 2020
9. webinar "Align Yourself to The Publishing Process" at K.S. Rangasamy College of Technology, on Thursday 18 June, 2020
10. webinar on "Transforming Humanity Through Sustainable Development" organized by Department of Applied Science at IARE-Hyderabad on June 8th-9th ,2020
11. Webinar on "Developing Soft Skills for Employability: An All-time Challenge", Organized by ASBM University, Bhubaneswar held on 2nd June, 2020
12. webinar titled "Art and challenges in Writing Papers for IEEE Transaction" organized by IEEE Bangalore Section on 8th June,2020
13. live webinar "How to Publish with Oxford Journals" On 11th June 2020 organized by EBSCO
14. National E-Seminar on "Intellectual Property Rights (IPR) and Patent Filing" organized by Innovation and Entrepreneurship Cell of Karmaveer Bhaurao Patil College on 23rd June 2021
15. webinar on "IPR Regime and Access to Vaccine and Medicines as Fight against Covid-19" organized by Himachal Pradesh Council for Science, Technology and Environment on 23rd June 2021
16. one-day online workshop on "Magnetoelectric composites" on 23 June 2021

17. webinar on "Solar Power Inverters" hosted by Sri Chandra Sekarandra Saraswathi Viswa Maha Vidyalaya in association with Pantech E-Learning on 28 June 2021
18. National Level Webinar on "Fuel cells Thermodynamics and its Applications", Organized by Department of Mechanical Engineering, VFSTR Deemed to be University, Vadlamudi, Guntur Dist, Andhra Pradesh, India held on 10th July 2021
19. 19.module "How to integrate sex, gender, and intersectional analysis into research" on Thursday 15 July, 2021 online on Researcher Acedemy.
20. online webinar "Integrating Scopus in Research Workflow" at Elsevier, Research Academy on Wednesday 14 July, 2021
21. National webinar on "Recent Advances in Chemistry" organized by Govt. GNA PG College, Bhatapara (C.G.) on 26 July, 2021
22. 22.online FDP on "Chemistry for Societal Advancements" from 26th-31st July, 2021.
23. national webinar on Recent Advances in Drug Development for Mankind (RADDM 2021), organized by the Department of Chemistry, GITAM Institute of Science, GITAM (Deemed to be University), Visakhapatnam on 11 Aug 2021.
24. national Level Faculty Development Program (FDP) on "Materials for Photonic Applications" conducted during 9th- 13th August, 2021
25. National Level webinar on "Intellectual Property Rights: Copyright and Patents" organized by C. D. Jain College of Commerce, Shrirampur, Ahmदनगर (Dist.) held on 27.08.2021
26. 26.National Webinar on "Online Education in Technical Institutions: A new normal" organized by School of Chemical Technology, Harcourt Butler Technical Univeristy, Kanpur on Aug 27, 2021.
27. AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Improving Personal Effectiveness at Workplace" from 1-5 Sep 2021 by Sikkim University.
28. Webinar Series on "Excellence of Women in the Field of Science and Technology" jointly organised by the Department of Physics and Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology, Chennai through virtual mode from 13-23rd September 2021.
29. One Day National Webinar on 'THEORETICAL AND PRACTICAL ASPECTS OF POWDER COATINGS' organized by Department of Paint Technology, School of Chemical Technology in association with Paint and Coating Technologists' Association (PACT), Harcourt Butler Technical University, Kanpur on September 18, 2021.
30. 30.webinar titled "Engineering Education in The Virtual World- Solving India Specific Grand Challenges", on Wednesday 15<sup>th</sup> September, 2021 at Delhi Technological University
31. 31.NPTEL AICTE Faculty Development programme in the course "Soalr Photovoltaics Fundamentals, Technology and Applications" during Jul-Sep 2021.

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32. participated in Two Day Faculty in-house training programme
33. By IQAC-CBIT held on 23rd & 30th April, 2022.
34. participated in 5-Day Faculty Development Programme on "Enhancing Research Eco-system in the Campus" organized by the Research & Development Cell from 22nd to 26th August 2022.at Mallareddy Engineering College-MAisammaguda-Hyderabad.
35. 34.participated in international webinar on "Empowering diversity in science on 16<sup>th</sup> Januaury, 2022 organized by Kalasalingam Academy of Research and Education.
36. Completed the AICTE-ISTE approved program on "Pedagogy Innovative Methods of Teaching and Learning" during 07-12 th Feb, 2022 by Bharat Institute of Engineering and Technology, Hyderabad.
37. participated in National e-Workshop on 'Dielectric Spectroscopy' organized by Department of Physics, KLE Science and Commerce College held on 25th January 2022.
38. participated in IP Awareness/Training program under National Intellectual Property Awareness Mission on January 15,2022 Organized by Intellectual Property Office, India
39. participated in one day International Online Faculty Development Program On "TECHNOLOGIES FOR THE NEW ERA" Organized by Innova Club - Department of Information Technology, Cauvery College for Women (Autonomous), Trichy on 22nd January 2022.
40. participated in IP Awareness/Training program under National Intellectual Property Awareness Mission on March 26, 2022 organized by Intellectual Property Office, India
41. completed a n AICTE Sponsored short term course "Laser Applications in Machining an material Processing"conducted from 07.03.2022-12.03.2022 by IITMadras.
42. Completed an FDP on "Quantum Physics leading way to Photonics"(webinar series on Nobel Prize in Physic 2022) from 10-14<sup>th</sup> Oct, 2022 by GH Raisonni College of Engineering, Nagpur.
43. 32. One week online FDP on "Quality Education through OBE" organized by Chaitanya Bharathi Institute of Technology(Autonomous), Gandipet, Hyderabad-500 075, Telangana, India, during 22nd - 27th January 2024
44. 33. One week online FDP on "Current Sciences and Developments in Nanoscience and Nanotechnology" organized by CBIT, during 29th January 2024 to 2nd February 2024
45. 34. "Unleashing the power of AI Agents" by IBM SkillsBuild 15<sup>th</sup> July, 2025

Details of Journal Publications/  
Conferences (National and  
International)



#### International Journal from the year 2017

1. **Pratima, B. M.**, Valleti, K., & Subrahmanyam, A. (2018). Optical and mechanical properties of Sol-gel prepared Titania ( $\text{TiO}_2$ )–Silica ( $\text{SiO}_2$ ) mixed thin films 'as prepared at 300 K' without any post heat treatment. *Materials Research Express*, 6(2), 026407.
2. **Pratima, B. M.**, Kumar, K. U., & Subrahmanyam, A. (2020, November). As-deposited sol-gel made  $\text{TiO}_2$ - $\text{SiO}_2$  films as protective coatings for silver. In *AIP Conference Proceedings* (Vol. 2265, No. 1). AIP Publishing.
3. Kishore, P. V. N., Aruna, N., **Pratima, B. M.**, Rao, N. R., & Ashok, J. (2021, April). Multi U-bent cladded POF sensors for refractive index measurement. In *Optical Sensors 2021* (Vol. 11772, pp. 116-119). SPIE.
4. Aruna, N., Mouli, K. C., Kishore, P. V. N., **Pratima, B. M.**, Rao, N. R., & Ashok, J. (2021, April). Detection of copper by localized surface Plasmon resonance based fiber optic technique. In *Optical Sensors 2021* (Vol. 11772, pp. 37-40). SPIE.
5. **Pratima, B. M.**, Kishore, P. V. N., Ashok, J., Satyanarayana, M., Reddy, P. K., Rao, N. R., & Lakshmi, D. V. (2022). Carcinogenic chromium (VI) sensing using transducing characteristics of fiber bragg grating and physical swelling of hydrogel. *Sensing and Imaging*, 23(1), 27.
6. **Pratima, B. M.**, & Subrahmanyam, A. (2023). Protective coatings on copper using as-deposited sol-gel  $\text{TiO}_2$ - $\text{SiO}_2$  films. *Materials Today: Proceedings*, 80, 1061-1065.
7. Rani, V.M., Kamatam, H.P., Moorthy, C.V., **Pratima, B.M.** and Kumar, S., 2025. Electrospun mesoporous lead oxide nanofibers as anode material for Li-ion batteries. *Journal of Materials Science: Materials in Electronics*, 36(12), p.746.

#### International /National Conferences from the year 2017

- **B. Manikya Pratima**, K. Uday Kumar, and A. Subrahmanyam S "As-deposited sol-gel made  $\text{TiO}_2$ - $\text{SiO}_2$  films as protective coatings for silver" 64th DAE Solid State Physics Symposium (DAE-SSPS 2019) held at Indian Institute of Technology Jodhpur, Rajasthan during December 18-22, 2019.
- N. Aruna, K. Chandra Mouli, P. V. N. Kishore, **B. M. Pratima**, N. Rajeswara Rao, and J. Ashok ". Detection of copper by localized surface Plasmon resonance-based fiber optic technique" SPIE Conference-Online mode, April 18, 2021
- P. V. N. Kishore, N. Aruna, **B. M. Pratima**, N. Rajeswara Rao, and J. Ashok "Multi U-bent cladded POF sensors for refractive index measurement SPIE Conference-Online mode, April 18, 2021
- **B. M. Pratima**, A. Subrahmanyam "Protective coatings on copper using as-deposited sol-gel  $\text{TiO}_2$  -  $\text{SiO}_2$  films" Global Conference on Recent Advancements in Sustainable Materials (GC-RASM 2022) 28-29 July 2022, AJ Institute of Engineering and Technology, Mangalore, Karnataka, India

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