

Dr. Anil Maini



Assistant Professor of Physics

Baba Ghulam Shah Badshah University (BGSB University), Rajouri, Jammu & Kashmir, India

Email: anilmaini@bgsbu.ac.in | Phone: +91-7006869510

Profile

Dr. Anil Maini is an Assistant Professor of Physics at Baba Ghulam Shah Badshah University, adept at fostering scientific literacy and mentoring students. Proven track record in research publication and curriculum development, enhancing student engagement through innovative teaching methods. Skilled in laboratory management and effective communication, driving academic excellence and enriching the learning environment. Accomplished Physics Lecturer with over 16 years of experience in higher-level learning institutions. Teaching load averaged 3 courses per semester for the past 16 years. Impressive subject knowledge and superb communication skills led to desirable student ratings.

Skills

- Teaching excellence
- Student mentoring
- Laboratory management
- Scientific communication
- Research experience
- Mentoring and coaching
- Teamwork
- Student motivation
- Lesson planning
- Problem-solving abilities
- Excellent communication
- Online teaching
- Project-based learning

- Student advising
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Work Experience

- Promoted scientific literacy among non-physics majors through engaging general education courses designed to make complex topics accessible to all learners.
 - Conducted research in the field of physics, published findings in peer-reviewed journals, and presented at national and international conferences.
 - Participated in professional development opportunities to stay current on industry trends, integrating new teaching methods into course delivery.
 - Organized guest lectures and workshops featuring renowned experts, enriching the academic environment for students and faculty alike.
 - Contributed to university-wide committees focused on improving faculty support systems and enhancing overall campus climate for teaching and learning.
 - Connected students with research opportunities and internships within the field of physics for postgraduate and B.Tech students.
 - Assisted the School of Engineering & Technology and University Polytechnic BGSBU in updating laboratory equipment, ensuring accurate data collection for reliable experimental results.
 - Served on departmental committees, contributing to curriculum development and program improvements aligned with accreditation standards.
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Higher Education

- PhD in Physics (Material Science), Department of Physics, National Institute of Technology Srinagar
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Teaching Experience

- Contractual Lecturer, Government P.G. Degree College, Rajouri (Two sessions before 2008)
 - Assistant Professor, School of Engineering and Technology, BGSB University, Rajouri (Since 2009)
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International Publications

1. Sofi, A. H., Maini, A., & Shah, M. A. (2014). Contamination free indium tin oxide (ITO) nanoparticles prepared without additives. *Technology Letters*, 1(7), 10–13.

2. Akhoo, S. A., Sofi, A. H., Maini, A., & Rather, A. A. (2014). Spherical harmonic on a four sphere. *Applied Mathematics and Physics*, 2(5), 157–160.
 3. Sofi, A. H., Akhoo, S. A., Rather, A. A., & Maini, A. (2015). Perturbative quantum gravity on de Sitter spacetime. *OALib Journal*. <https://doi.org/10.4236/oalib.1101422>
 4. Sofi, A. H., Abubakar, B., & Maini, A. (2014). Energy challenges and optimization of figure of merit for thermoelectric materials. *International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)*. <https://doi.org/10.15680/IJIRSET.2014.0310010>
 5. Maini, A., Sofi, A. H., & Shah, M. A. (2016). Agglomerated copper oxide (CuO) nanostructures and their growth mechanism. *Advanced Science Letters*, 22(4), 1042–1044.
 6. Maini, A., & Shah, M. A. (2021). Sol-gel fabricated CuO thin film: Characterization for device application.
 7. Maini, A., & Shah, M. A. (2021). Investigation on physical properties of nanosized copper oxide (CuO) doped with cobalt (Co): A material for electronic device application. *International Journal of Ceramic Engineering & Science*, 3(4), 192–199.
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Faculty Development Programmes, Workshops, Orientation Programmes, and Refresher Courses Attended

- Participated in the **Inspire Internship Programme** organized by the National Institute of Technology (NIT) Srinagar, held from 21st to 25th November 2013. This program provided exposure to advanced research and experimental methods in physics and material science.
- Attended an **Eight-day Workshop on C-Programming**, organized by the Department of Mathematical Sciences, Baba Ghulam Shah Badshah University (BGSBU), Rajouri, Jammu & Kashmir, India, from 1st April to 9th April 2016. The workshop focused on developing programming skills necessary for scientific computing and data analysis.
- Participated in a **One-week Short Term Course on Sustainable Environmental Management through Information and Communication Technology (ICT)** conducted by the Civil Engineering Department in association with the National Institute of Technical Teachers Training and Research (NITTTR), held at BGSBU from 14th March to 18th March 2016. This course emphasized environmental sustainability and ICT-enabled solutions for environmental challenges.
- Attended the **International Conference on Nanotechnology for Better Living**, jointly organized by NIT Srinagar and Indian Institute of Technology (IIT) Kanpur, from 25th May to 29th May 2016. The conference showcased the latest research developments in nanotechnology and its applications in various fields.
- Participated in a **Four-day Workshop on Basics of MATLAB Programming and Simulink**, organized by the Departments of Electrical and Electronics Engineering (ERE) and Computer Science Engineering (CSE) at the School of Engineering and Technology, BGSBU, from 15th November to 19th November 2016. This workshop provided hands-on training on MATLAB programming environment and simulation tools.

- Attended a **Two-day Workshop on Outcome Based Education (OBE)** held at the School of Engineering and Technology, BGSBU, from 19th March to 20th March 2018 under the Technical Education Quality Improvement Programme (TEQIP-III). The workshop aimed to enhance the teaching-learning process by implementing outcome-based strategies in curriculum design and assessment.
- Participated in the **National Conference on Recent Advances in Computer Science and Information Technology (NCRACIT)**, organized by the Department of Information Technology and Engineering at the School of Engineering and Technology, BGSBU, held on 24th and 25th April 2018. The conference featured presentations on cutting-edge topics in computer science and IT.
- Completed a **Short Term Course on Life Skill Development**, conducted by the National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh through Information and Communication Technology (ICT) mode from 30th July to 3rd August 2018. This course focused on developing essential life skills such as communication, leadership, and time management.
- Participated in a **Short Term Course on Internet of Things (IoT)** organized by NITTTR Chandigarh through ICT mode from 6th August to 10th August 2018. The course covered fundamental concepts and applications of IoT in various industries.
- Attended a **Five-day Short Term Course on Quantum and Energy Materials: Potential and Applications**, conducted by NITTTR Chandigarh from 20th April to 24th April 2020. The course provided insights into recent advances in quantum materials and their energy-related applications.
- Completed a **Five-day Short Term Course on Nanomaterials and Devices**, conducted by NITTTR Chandigarh from 27th April to 1st May 2020, which covered the synthesis, characterization, and application of nanomaterials in device fabrication.
- Attended a **Five-day Course on Strategic Planning for Entrepreneurship Promotion**, conducted by NITTTR Chandigarh from 4th May to 8th May 2020. The course focused on strategies for fostering entrepreneurship among students and faculty.
- Participated in a **One-Day International Webinar on "Enhancing the Upbringing of Learning in Technical Institutions with Digital Platforms for Conductive Outcome"**, conducted by the Directorate of Technical Education, Rajasthan, Jodhpur on 24th May 2020. The webinar discussed digital transformation in technical education.
- Completed a **Five-day Short Term Course on Evaluation and Setting of Question Papers**, conducted by NITTTR Chandigarh from 25th May to 29th May 2020. The course emphasized effective evaluation techniques and assessment design.
- Participated in One week Online FDP on “ OPEN SOURCE TOOLS FOR RESEARCH” from 21st -27 April, 2022 with A⁺ grade under the aegis of the Ministry of Education, Malaviya Mission Teacher Training Programme.
- Completed a **Short Term Course on ICT Tools for Smart Educators**, conducted by the National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh and Computer Science and Engineering Department from 27/01/2025 to 31/01/2025 at BGSB University Rajouri JK.
- Completed a **Short Term Course on Fostering Research and Development in Academic Institutions**, conducted by the National Institute of Technical Teachers

Training and Research (NITTTTR) Chandigarh and Entrepreneurship Development and Industrial Coordination Department Department from 03/02/2025 to 07/02/2025 at BGSB University Rajouri JK.

Orientation and Refresher Courses Attended

- Successfully completed the **General Orientation Course**, organized by the University Grants Commission (UGC) Academic Staff College at the University of Jammu, from 4th July to 31st July 2012. This course focused on the fundamentals of teaching methodologies, academic ethics, and higher education governance.
- Participated in the **Refresher Course in the subject of Physics**, organized by the UGC Human Resource Development Centre at the University of Jammu from 2nd February to 22nd February 2016. The course provided advanced training in recent developments in physics and pedagogy.
- Attended an **Online Two-week Refresher Course in Physics**, held from 28th July to 11th August 2022 under the aegis of the Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT). The course covered interdisciplinary topics in physics, research methods, and teaching innovation.
- Completed a **Four-week Faculty Induction and Orientation Programme for Faculty in Universities, Colleges, and Institutes of Higher Education**, conducted from 23rd May to 21st June 2023, under the Ministry of Education, PMMMNMTT. The program focused on academic leadership, curriculum design, and student-centric pedagogy.
- Participated in a **Two-week Interdisciplinary Refresher Course in Advanced Research Methodology**, conducted from 21st June to 5th July 2023, under the Ministry of Education, PMMMNMTT. This course provided advanced training in research design, statistical tools, and publication ethics.
- Participated in Online Interdisciplinary 2 week Refresher Course in “Managing Online Classes & Co Creating MOOCS” from 08th -22 March, 2024 with Grade A under the aegis of the Ministry of Education, Malaviya Mission Teacher Training Programme.
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MOOCs Course Attended

- Completed the **Structural Analysis of Nanomaterials** course (4 weeks) conducted by the Indian Institute of Technology (IIT) Roorkee from 29th July to 23rd August 2019.