

SUHAIL IQBAL MALIK

Jammu and Kashmir, India

Nadigam Shopian, Jammu & Kashmir, 192303

Phone: +91-7006551923

Email: suhailqbalphy02@gmail.com

Office: suhailqbalnit@gmail.com

PROFESSIONAL SUMMARY

Physics Researcher (Ph.D.) and AI domain expert specializing in prompt engineering, complex mathematical/physical reasoning evaluation, and advanced technical content development. Backed by 13+ years of experience in higher education, scientific research, and national-level curriculum design. Proven expertise in training large language models (LLMs) on graduate-level physics, solid-state mechanics, and complex function-calling datasets, ensuring high-fidelity AI performance and safety alignment.

CORE COMPETENCIES & AI SKILLS

AI Training & Alignment	Complex prompt creation, adversarial testing, multi-step reasoning validation, and rubric-based model evaluation for STEM domains.
Domain Expertise	Quantum mechanics, solid-state physics, materials science, nanomaterials, and advanced mathematics.
Technical & Programming	Python (pandas, numpy, matplotlib, sympy), Microsoft Office Suite (Word, Excel, PowerPoint), and technical documentation workflows.
Pedagogical & Communication	High motivation, exceptional technical communication, leadership, and analytical problem-solving.

PROFESSIONAL EXPERIENCE & AI CONTRACTING

AI Trainer & Prompt Engineer (*Worked In Turing, Outlier and Handshake*)

- Designed and evaluated multi-turn, graduate-level adversarial prompts and test cases in quantum mechanics, solid-state physics, and advanced mathematics to stress-test and align large language models.

- Verified functional-calling payloads, calibrated model responses against ground-truth scientific equations, and ensured strict accuracy in AI training datasets.

Physics Researcher & Academic Professional

- Conducted advanced research in nanomaterials, optical properties of doped TiO₂ nanocrystals, and semiconductor thin films, authoring peer-reviewed publications.
- Mentored students and educators in national-level competitive exam preparation (NEET/JEE/AIIMS), producing top-tier academic results.

EDUCATION

- **Ph.D. in Physics:** National Institute Of Technology, Srinagar (2026)
- **M.Ed.:** University of Kashmir, Srinagar, J&K
- **B.Ed.:** University of Kashmir, Srinagar, J&K (2010)
- **M.Sc. in Physics:** University of Kashmir, Srinagar, J&K (2009)
- **B.Sc. (Physics & Mathematics):** Amar Singh College, Srinagar (2006)
- **CSIR, NET:** Qualified (2011)

PUBLICATIONS & RESEARCH

1. **Optical Properties of V-doped TiO₂ Nanocrystals** — *Arabian Journal of Science and Engineering* (2024).
2. **Ag-enriched TiO₂ nanocoating apposite for self-sanitizing/self-sterilizing/self-disinfecting of glass surfaces** — *Materials Chemistry and Physics* (2022).
3. *Structural Evolution and Bandgap Engineering in Zr-Doped TiO₂ Nanostructures*. SI Malik, H Singh Solid State Communications, 116462
4. **Poster Presentation** — *International Conference on Current Advances in Applied Physics (ICCAAP-2026)*.

AWARDS, HONORS & APPRECIATIONS

- CSIR, NET Qualified (2011)
- Certificate from the Hon'ble Prime Minister for participating in Pariksha Pe Charcha (2023)
- Best Physics and Mathematics Communicator Award
- Appreciation Certificate from Director NIT Srinagar for student mentoring
- Certificate from Homi Bhabha Centre for Science Education (HBCSE)

Suhail Iqbal Malik

India