Dr. Anurag Gaur
Associate Professor
Department of Physics,
Netaji Subhas University of Technology
Sector-3, Dwarka, New Delhi-110078
Email: anuragdph@gmail.com
anurag.gaur@nsut.ac.in
Mobile: 9896087178

Bio-sketch

Dr. Anurag Gaur is presently working as an Associate Professor in Department of Physics, Netaji Subhas University of Technology Sector-3, Dwarka, New Delhi. Previously, Dr Gaur served for National Institute of Technology Kurukshetra. Dr. Anurag Gaur received his Ph.D. degree from IIT Roorkee in 2007. He has research work on Energy Conversion & Storage Devices, Functional Nanomaterials, and Spintronics. He has published more than 150 research papers in reputed research journals. He has handled 08 research project funded by Department of Science & Technology, Govt of India, Council of Scientific and Industrial Research, New Delhi and Department of Atomic Energy, Govt of India. He was awarded young scientist research project award by Department of Science & Technology, Govt of India and best faculty award by National Institute of Technology Kurukshetra. He had supervised 08 Ph.D. and 70 M.Tech/MSc. theses. Dr Gaur is the Editor of Applied Science Letter, CNSE Journals and reviewer of various international research journals including AIP, Elsevier, IOP, Springer Journals. He has also written 03 books on Energy storage and conversion devices and 03 Patents are granted in his name. He is also the life member of Material Research Society of India and American Chemical Society. He has delivered more than 60 invited talks in India and abroad on different topics and also visited various countries including Australia, Singapore, Switzerland, France, U.K., Japan etc. for academic and research assignments. His research citations are 4250, h-index 37 and i-10 index 103.

- Research Interests: **Energy Conversion and Storage Devices, Functional Nanomaterials**
- Total Number of Research Publications: **150**
- Number of Ph. D. theses supervised: **08 (Awarded), 06 (**In progress)
- Number of Post Doctoral Fellow (PDF) working: **02 (ANRF-NPDF, CSIR-RA)**
- Number of M. Tech/M.Sc. dissertations supervised: **70 (Awarded)**
- No. of Sponsored R & D Projects completed/Ongoing: **08 (SERB, CSIR, DAE, HSCSIT)**
- Patents Granted: **03**
- Books published: **03**
- Device fabricated: **Hydroelectric Cells, Supercapacitors, Separators**
- Google Scholar Citation: **4250, h-index: 37, i10-index: 103**
- Invited Talks at India & Abroad: **60**
- **Best Faculty Award in 2019 at N.I.T., Kurukshetra**

Few Recent Publications:

1. In-situ conversion of waste biomass into heteroatoms (N, O)-doped 3D porous carbon for colossally efficient electric double-layer capacitor
   A Agrawal, PS Shukla, GD Varma, Anurag Gaur, A Kumar
   Journal of Energy Storage 109, (2025) 115095
2. Tailoring of rGO in Fe3O4-rGO nanocomposite based Hydroelectric Cell to enhance green energy production
   A Bankura, Anurag Gaur, M Garg, RK Kotnala
   Ceramics International, 51 (2025) 18799-18815
3. Synthesis of mesoporous Zn-doped MnCo2O4 nanoparticles for high-energy density solid-state asymmetric supercapacitor
   PS Shukla, A Agrawal, **Anurag Gaur**, GD Varma
   Journal of Energy Storage 73, (2023) 109229
4. Synthesis of mesoporous Zn-doped MnCo2O4 nanoparticles for high-energy density solid-state asymmetric supercapacitor
   PS Shukla, A Agrawal, **Anurag Gaur**, GD Varma
   Journal of Energy Storage 73, (2023) 109229
5. Strategic enhancement of oxygen defects in ZnO from ZnS for water splitting to generate green electricity by hydroelectric cell
   S Badola, J Shah, **Anurag Gaur**, S Khasa, DS Rawal, TK Mandal, AK Srivastava
   Applied Materials Today, 34, (2023) 101904

6. Fabrication of Phyllanthus emblica leaves derived high-performance activated carbon-based symmetric supercapacitor with excellent cyclic stability
   A Agrawal, **Anurag Gaur**, A Kumar
   Journal of Energy Storage, 66, (2023) 107395
7. Enhanced Curie temperature with a significant reduction in sintering temperature for Cu2+/Bi3+ co-doped BCZT lead-free ceramics
   S Kumari, A Kumar, V Kumar, S Aggarwal, PK Goyal, **Anurag Gaur**, A Arya, ...
   Materials Science and Engineering: B, 293, (2023) 116500
8. Facile synthesis of mesoporous MnCo2O4@ MoS2 nanocomposites for asymmetric supercapacitor application with excellent prolonged cycling stability
   PS Shukla, A Agrawal, **Anurag Gaur**, GD Varma
   Journal of Energy Storage 59, (2023) 106580
9. Tin Oxide (SnO_2)-Decorated Reduced Graphene Oxide (rGO)-Based Hydroelectric Cells to Generate Large Current
   Aarti, **Anurag Gaur**, P Chand, J Shah, RK Kotnala
   ACS omega 7 (48), (2022) 43647-43656
10. Fabrication of robust Fe2O3@ NiCo2O4 core-shell composite with spikey surface for high-performance asymmetric solid-state supercapacitor
    A Agrawal, A Kumar, **Anurag Gaur**
    Journal of Energy Storage 56, (2022) 105990
11. Development of Mg-doped hematite (α-Fe 2 O 3)-based hydroelectric cell to generate green electricity
    Aarti, **Anurag Gaur,** J Shah, RK Kotnala, D Kumar
    New Journal of Chemistry 46 (44), (2022) 21158-21166
12. Electrochemical performance of transition metal-based CoB_2O_4 (B= Co and Fe) oxides as an electrode material for energy storage devices
    M Goyal, S Verma, J Malik, P Giri, R Kumar, **Anurag Gaur**
    New Journal of Chemistry, 4 **(**2022) 10671-10681
13. Progress in Electrode and Electrolyte Materials: Path to All-solid-state Li-ion Batteries
    SK Sharma, G Sharma, **Anurag Gaur**, …R Abolhassani, HG Rubhan, YK Misra
    Energy Advances, 01 (2022) 457-510
14. Electrochemical Performance of rGO@ ZnCo2O4 Microspheres: Rationally Designed Asymmetric Constructed Wide-Potential Energy Storage Device
    M Sharma, **Anurag Gaur**
    Journal of The Electrochemical Society, **168** (2021) 070549
15. Fabrication of activated carbon electrodes derived from peanut shell for high-performance supercapacitors
    L Pandey, S Sarkar, A Arya, AL Sharma, A Panwar, RK Kotnala, **Anurag Gaur**
    Biomass Conversion and Biorefinery, (2021) 1-10
16. Fabrication of PVDF/BaTiO3/NiO nanocomposite film as a separator for supercapacitors
    M Sharma, **Anurag Gaur**

Journal of Energy Storage 38, (2021) 102500

17. Syntheses, crystal structures, topology and dual electronic behaviors of a family of amine-templated three-dimensional zinc-organophosphonate hybrid solids
    T Rom, N Kumar, A Agrawal, **Anurag Gaur**, AK Paul
    Journal of Molecular Structure 1263, (2022) 133087
18. An efficient green energy production by Li-doped Fe3O4 hydroelectric cell
    Anurag Gaur, P Kumar, A Kumar, J Shah, RK Kotnala
    Renewable Energy, 162, (2020) 1952-1957
19. Designing of Carbon Nitride Supported $ZnCo_2O_4$ Hybrid Electrode for High-Performance Energy Storage Applications
    M. Sharma, **Anurag Gaur**
    Scientific Reports 10 Article number: 2035 (2020) 1-10
20. Cu Doped Zinc Cobalt Oxides Based Solid State Symmetric Supercapacitors: A Promising Key for High Energy Density
    M. Sharma, **Anurag Gaur**
    Journal of Physical Chemistry C, 124 (2020) 9-16
21. Fabrication of a SnO_2-Based Hydroelectric Cell for Green Energy Production
    Anurag Gaur, Anurag Kumar, et al.
    ACS Omega, 5 (18) (2020) 10240-10246
22. Transition Metal Dichalcogenide (TMDs) electrodes for Supercapacitors: A Comprehensive Review
    S Tanwar, A Arya, A Gaur, AL Sharma
    Journal of Physics: Condensed Matter, **33** (2021) 303002

(Anurag Gaur)