ANKIT MALIK

Ph.D (Ongoing)
Organic Nano-Electronics, Material Engineering Indian Institute of Science Bangalore

M.Tech
Material Science and Technology
DRDO (DIAT Pune)

B.Tech
Electronics & Communications Engineering
IIITDM Jabalpur

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QUALIFICATIONS

Doctor of Philosophy *(2019–Ongoing: CGPA-9.5/10)*
Materials Engineering (Organic Nano-Electronics)
Indian Institute of Science (IISc), Bangalore

Master of Technology *(2016 – 2018: CGPA-8.06/10)*
Material Science & Technology
DIAT Pune (Under Defence Research and Development Organisation)

Bachelor of Technology *(2009 – 2013)*
Electronics and Communication Engineering
Indian Institute of Information Technology, Design & Manufacturing Jabalpur

COURSES & INTERESTS

- Nanoscience and Device Fabrication
- Semiconductor Devices
- Electronic Properties of Materials
- Nanotechnology
- Solid State Physics
- Electromagnetic Theory
- Polymer Processing
- 3D Printing Technology
- Visual Representation
- Research
- Product Iteration
- Technology Gap Analysis
- Defining Research Process

SKILLS

Software	Equipments
• CST Microwave Suite	• Electrospinning
• Lumerical FDTD	• UV-Vis Spectrometer
• Accerlys Material Studio	• Small Angle X-ray Scattering (SAXS)
• Pspice	• Spray Coating
• National Instruments Labview	• Water Contact Angle Instrument
• Solidworks	• PCB Fabrication Machine
• ZWCAD	• Vector Network Analyzer
• Adobe Photoshop	

PROFESSIONAL MEMBERSHIP

EXPERIENCE

Accendere KMS Pvt. Ltd. (100% owned by CL Educate Ltd.)
Associate, Product Management *May 2018 – December 2018*

- Product Design and validation for project management tool.
  - Responsible for developing **logical process flow**
  - Established **conditional functionality** of the product
  - Documented **product navigational procedure** adhering to coherency of process flow
- Worked on Product Design for open innovation platform (www.wainconnect.com)
  - Responsible for developing intelligible layout for content delivery
- Conducted Product Testing (App) focused on user experience for 8 cohorts.

PUBLICATIONS

- **Ankit Malik**, and Balasubramanian Kandasubramanian. "Flexible Polymeric Substrates for Electronic Applications." Polymer Reviews, Taylor and Francis (2018): 1-38. DOI: 10.1080/15583724.2018.1473424.
- Shilpa Simon, **Ankit Malik** and Balasubramanian Kandasubramanian. "Hierarchical Electrospun Super-Hydrophobic Nanocomposites of Fluoroelastomer", Material Focus (2018), 7, 194-206(13). DOI: 10.1166/mat.2018.1499.
- Rao Neeraj, **Ankit Malik**, Rahul Kumar, Shobhit Goel, and Dinesh Kumar. "Novel star-shaped fractal antenna for multiband applications." International Journal of Microwave and Wireless Technologies 9, no. 2 (2017): 419-425. DOI: 10.1017/S1759078715001592.
- **Ankit Malik**, RaviPrakash Magisetty, Viresh Kumar, Anuj Shukla and Balasubramanian Kandasubramanian. "Dielectric and Conductivity Investigation of Polycarbonate-Copper Phthalocyanine Electrospun Nonwoven Fibres for Electrical and Electronic Application "Polymer-Plastics Technology and Materials(2019), Taylor and Francis. DOI: 10.1080/25740881.2019.1625390

CERTIFICATION & SCHOLARSHIPS

- Solid State Physics, IIT Kharagpur.
- Analytical Problem Solving and Design, University of Adelaide
- UGC - MHRD Fellowship for Doctoral Program.
- All India Council for Technical Education (AICTE) Post Graduate scholarship for M.Tech.

ACADEMIC RESEARCH PROJECTS

M.Tech Project *June 2017 – May 2018*

Title : Electrospun Copper Phthalocyanine Polycarbonate Composite for Electronic Applications

The project aimed at evaluating dielectric properties of electrospun polycarbonate incorporated by copper phthalocyanine with varying concentrations. The fabricated electrospun composite was characterized using Fourier Transform Infrared Spectroscopy, Small Angle X-ray Scattering (SAXS), Field Emission Scanning Electron Microscopy, Broadband Dielectric Spectroscopy and Vector Network Analyzer (VNA). The electrospun composite possessed reduced dielectric constant as a result of processing of polycarbonate with copper phthalocyanine via electrospinning.

Student Membership: American Physical Society

CO-CURRICULAR ACTIVITIES

- Co-ordinated Astronomy Session (Tech. Fest: Abhikalpan 2011)
- Co-ordinated Design Team (Cult. Fest: Tarang 2012)
- Co-ordinated Prof Night (Cult. Fest: Tarang 2011)
- Co-ordinated Sponsorship Committee (Cult. Fest: Tarang 2011)

HOBBIES

- Sketching
- Amateur Astronomy
- Swimming
- Reading Mythology

ACADEMIC ACHIEVEMENTS

- Secured a score of **100** in **TOEFL**
- Awarded **IIITDM Proficiency Medal** for best research project.
- Secured position within **top 7** ranks in Solid State Physics (IIT Kharagpur)
- Secured position within **top 7** ranks in Solid State Physics by IIT Kharagpur on NPTEL.
- Secured Rank within **top 1.5%** applicants in All India Engineering Entrance Examination (AIEEE) 2009.
- Secured rank equivalent to **97.3 percentile** in **Graduate Aptitude Test** in Engineering 2016.
- Qualified for Level-2 Mathematics Olympiad *(2005)*
- Qualified for Level-1 Physics Olympiad (*2005)*

B.Tech Project *May 2012 – November 2012*

Title : Designing A Novel Fractal Antenna And Study Of Metamaterials

The project aimed at designing a novel fractal antenna and study the effects of metamaterials in enhancement of gain.

The geometrical CAD modelling of the proposed design was done using computer simulation technology (CST) studio where the electromagnetic simulation of the structure was performed. The structure, parametrically optimized for maximizing gain, was further fabricated on commercially available substrate, Rogers RO4003 (dielectric constant: 3.55) and tested using vector network analyser. The simulated and actually measured results demonstrated coherency with multiband operation in C, X and Ku bands.

Other Academic Projects

M.Tech

- Magnetic Spin Controlled Resistive Changes and based Devices
- Effect of Carbon Nanotube in Epoxy Impact Strength
- Plasmonics and its Application in Beaming Light through Sub wavelength Hole Spray
- Coating CuPc/Polycarbonate

B.Tech

- Simulation and Parametric analysis of Extra Ordinary Transmission Through Sub Wavelength Hole
- Gain Enhancement of Microstrip Patch Antenna using Electromagnetic Band Gap structures
- Analysis of Transmission and Reception of Plasmonic Spiral Nanoantenna using Computational Electromagnetic Simulation
- Analysis of Nanophotonic Crystals & Photonic Devices using Computational Electromagnetic Simulation