Curriculum vitae

PERSONAL INFORMATION	**Nishant Mishra**

📍 New Delhi (India)

🌐 nishant-mishra.com

EDUCATION AND TRAINING

Aug 2014–May 2018 — Bachelor's of Technology in Electrical and Electronics Engineering — *EQF level 6*
Guru Tegh Bahadur Institute of Technology (affiliated with Guru Gobind Singh Indraprastha University), New Delhi (India)

2013–2014 — All India Senior School Certificate Examination — *EQF level 4*
Delhi Public School, R. K. Puram, New Delhi (India)
Mathematics, Physics, Chemistry, Computer Science, English

2011–2012 — All India Secondary School Certificate — *EQF level 2*
Delhi Public School, R. K. Puram, New Delhi (India)
Mathematics, Science, Social Studies, Computer Science, English, Hindi

Feb 2019 — Primer on Semiconductor Fundamentals (MOOC) (Audit)
Purdue University (EdX), West Lafayette (United States)

Jun 2018 — Nanotechnology for Health (MOOC)
University of Twente (FutureLearn), Enschede (Netherlands)

Dec 2017 — Device Characterization with the Keithley 4200-SCS (MOOC) (Audit)
Keithley Instruments, Inc (Nanohub), Cleveland (United States)

Feb 2017 — Micro & Nano fabrication (MEMS) (MOOC)
École Polytechnique Fédérale de Lausanne (EdX), Lausanne (Switzerland)

Nov 2018 — Circuits and Electronics 1: Basic Circuit Analysis (MOOC)
Massachusetts Institute of Technology (EdX), Cambridge (United States)

Sep 2016 — The Arduino Platform & C Programming (MOOC)
University of California, Irvine (Coursera), Irvine (United States)

WORK EXPERIENCE

Dec 2017–Present — Research Intern
Indian Institute of Technology Delhi, New Delhi (India)

- Characterized a Bioimpedance sensor for bacteria detection
- Fabricating and characterizing protein and polysaccharide-based Resistive switching memory device on a flexible substrate
- Characterizing a BioFET sensor for bacteria detection

1 Jun 2017–1 Aug 2017	**Research Intern**

Indian Institute of Technology Delhi, New Delhi (India)

Fabricated and characterized a Protein-based Resistive memory device on a flexible substrate

Aug 2016–Dec 2017	**Member, Electronics Club GTBIT**

IEEE GTBIT, New Delhi (India)

- Conducted an academic-industry workshop on Renewable Energy resources
- Conducted a two day hardware hackathon

Aug 2015–Aug 2016	**Member, IEEE**

IEEE GTBIT, Delhi (India)

- Taught a Special Interest Group on basics of C
- Conducted a quiz titled "TechQuIEEZ" on IEEE Day 2015
- Conducted mock Group Discussions and Personal Interviews on IEEE Day 2015

PERSONAL SKILLS

Job-related skills

- **Electrochemical Impedance Spectroscopy** using BioLogic SP-150 Potentiostat
- **Semiconductor characterization** using Keithley 4200 and 4200A parameter analyzers. Experience with Keithley 2636B, Keithley 2400 SMUs
- **Physical Vapour Deposition** using Varian 3117 Thermal evaporator
- **Mask designing** using ProjeCAD and IntelliCAD
- **Data analysis and plotting** using Origin 2019
- **Infrared Spectrum analysis** using Thermo Scientific Nicolet iN10MX infrared imaging microscope
- **UV-Vis Spectrum analysis** using Eppendorf Biospectrometer
- **Silver Nanoparticle Synthesis** using chemical & biological synthesis
- **Basic Object Oriented Programming** using C++

ADDITIONAL INFORMATION

Publications

Vancomycin functionalized WO3 thin film-based impedance sensor for efficient capture and highly selective detection of Gram-positive bacteria

Biosensors and Bioelectronics 136:23-30(2019)

[Impact factor 9.518]

https://doi.org/10.1016/j.bios.2019.04.029

MoS$_2$/TiO$_2$ Hybrid Nanostructure-based Field Effect Transistor for Highly Sensitive, Selective, and Rapid Detection of Gram-positive Bacteria

Under review

Conferences

Reconstituted Fe-Azurin based device for resistive memory switching

Submitted extended abstract to the **International Workshop on the Physics of Semiconductor Devices, 2017**

Honours and awards

- March 2016- Second Place in Tesla Turbulence -IEEE GTBIT: Quiz on hardware, networking, electronics, boolean algebra, and PC assembly
- 2010-2012- Second Green Badge for academic excellence for two consecutive years - Delhi Public

School, R.K. Puram
- 2006-2009- Scholar Badge for academic excellence for three consecutive years - Delhi Public School, R.K. Puram