Curriculum vitae

PERSONAL INFORMATION

Nishant Mishra

New Delhi (India)

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https://mishra-nishant.github.io/

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 a Polysaccharide-based Resistive 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

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)

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

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

PERSONAL SKILLS

Job-related skills

- **Physical Vapour Deposition** using Varian 3117 Thermal evaporator
- **Semiconductor characterization** using Keithley 4200 and 4200A parameter analyzers. Experience with Keithley 2636B, Keithley 2400 SMUs
- **Electrochemical Impedance Spectroscopy** using BioLogic SP-150 Potentiostat
- **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

Submitted to Biosensors and Bioelectronics on 26 Feb 2019, 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, logic, mounting and 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