Nishant Mishra
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nishant-mishra.com

EDUCATION AND TRAINING

Bachelor of Technology in Electrical and Electronics Engineering, Guru Tegh Bahadur Institute of Technology (affiliated to Guru Gobind Singh Indraprastha University)(EQF Level 6) 2014-2018-

All India Senior School Certificate Examination, Delhi Public School, R. K. Puram, Mathematics, Physics, Chemistry, Computer Science, English (EQF level 4) 2010-2014

Primer on Semiconductor Fundamentals (MOOC) (Audit), Purdue University (EdX) February 2019

Nanotechnology for Health (MOOC), University of Twente (FutureLearn) June 2019

Device Characterization with the Keithley 4200-SCS (MOOC) (Audit), Keithley Instruments, Inc (Nanohub) December 2017

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

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

The Arduino Platform & C Programming (MOOC), University of California, Irvine (Coursera) September 2016

WORK EXPERIENCE

Research intern - Centre for Applied Research in Electronics, Indian Institute of Technology, Delhi December 2017 - August 2019

Characterized a Bioimpedance sensor for bacteria detection

Characterized a BioFET sensor for bacteria detection

Fabricated and characterized protein and polysaccharide-based resistive-switching memory devices on a flexible substrate

Research intern - Centre for Applied Research in Electronics, Indian Institute of Technology, Delhi June 2017 - August 2017

Fabricated and characterized a protein-based resistive-switching memory device on a flexible substrate

Member, Electronics Club GTBIT - IEEE GTBIT August 2016 - December 2017

Conducted an academic-industry workshop on Renewable Energy resources

Promoted and conducted a two day hardware hackathon

Member, IEEE - IEEE GTBIT August 2015 - August 2016

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

Promotions Team - Leaders for Tomorrow March 2016

Promoted the event "Date with Development" for a non-profit organization on social media

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Content Developer - Project Wave: NIIT June 2007

Led by Prof Sugata Mitra (TED Prize Winner, 2013) Created learning and awareness materials for a self-organised learning platform

PERSONAL SKILLS

Event Management
Social media campaigning
Mother tongues: Hindi, Punjabi
Foreign languages: English (TOEFL 109), Basic Dutch

JOB RELATED SKILLS

Electrochemical Impedance Spectroscopy using BioLogic SP-150 Potentiostat

Thermal evaporation using a modified Varian 3117 evaporator

Semiconductor characterization using Keithley 4200 and 4200A parameter analyzers. Experience with Keithley 2636B, Keithley 2400 SMUs

Mask designing using ProjeCAD and IntelliCAD

Data analysis and plotting using Originlab 2017

Infrared Spectrum analysis using Thermo Scientific Nicolet iN10MX infrared imaging microscope

UV-Vis Spectrum analysis using Eppendorf Biospectrometer

Silver Nanoparticle Synthesis using chemical synthesis

SEM image measurements using ImageJ

Basic Programming using C++

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PUBLICATIONS AND CONFERENCES

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

MoS2/TiO2 Hybrid Nanostructure-based Field Effect Transistor for Highly Sensitive, Selective, and Rapid Detection of Gram-positive Bacteria

Under review

Reconstituted Fe-Azurin based device for resistive memory switching

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

AWARDS AND RECOGNITION

GAIT Certified IT Professional – Bronze - Global Assessment of Information Technology March 2017

A Bronze level GAIT Certified IT Professional has demonstrated basic comprehension and knowledge needed for an entry level position.

Second Place in Tesla Turbulence -IEEE GTBIT March 2016

Quiz on hardware, networking, electronics, logic, mounting and assembly

Certificate of Appreciation - Open magazine 2015

Encouraging citizens to plant more trees

Second Green Badge for academic excellence for two consecutive years - Delhi Public School, R.K. Puram 2010-2012

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