AMIRA AHMED, MSc.

UNAM, BILKENT UNIVERSITY, TURKEY

Phone: (+20) 100-700-6421, (+90) 5060-511-345
amira@unam.bilkent.edu.tr
Skype ID: amira.ahmed.410

EDUCATION	• **MSc. Bilkent University (Sep. 2014 – Jan. 2017)** UNAM, Material Science and Nanotechnology Department **Thesis**: "*RF-Sputtering of Doped Zinc Oxides Thin Films, The Effect of Low Substrate Heating deposition*". **GPA**: 3.27 **BIYIKLI** Research Group & **AYKUTLU** Research Group • **MSc. Nile University (Oct. 2010 – Aug.2013**) GPA: 3.48 • **Bioinformatics Diploma (Sep. 2009 – July. 2010)** Information Technology Institute (ITI)-Egypt. Graduation Project Grade: A • **BSc. Ain Shams University (Sep.2005- July 2009)** Faculty of Science **Major: Biophysics** Graduation Project: Excellent
JOBS & Working Experiences	• **Research Assistant** **1-** UNAM , Department of Material Science and Nanotechnology, Bilkent University (Full Time) **2-** (STRC), Youssef Jameel Science and Technology Research Center American University in Cairo (AUC), Cairo, Egypt.(Sep. 2012-Aug. 2013 (Part Time) **3-** (CNT)Center of Nanotechnology, Nile University (NU), Cairo, Egypt. Oct.2010- Oct.2012 (Full Time) • **Teaching Assistant** **1-** Physics TA at Misr International University (MIU), Egypt, Physics (101) - (Part Time) • **Teaching (Private Tutor)** **1-** Physics, Libya High School Syllabus **2-** Collage Physics 101/ Bilkent University • **Pharmaceutical Regulatory Affair Specialist** 1- Royal Link Pharma, Cairo, Egypt. (Aug. 2013 – Feb. 2014)

HONORS AND AWARDS	• **Full Scholarship:** PhD. Material Science and Engineering, Sabanci University, Istanbul, Turkey. **I declined it** • **Full Scholarship:** MSc. Material Science and Nanotechnology**.** UNAM, Bilkent University, Ankara, Turkey. • **Full Scholarship**: MSc. in Nanotechnology, Nile University (NU) – Egypt.- Selected Students; 30 out of 200 • **Full Scholarship:** Diploma in Bioinformatics, Information Technology Institute (ITI)-Egypt. – Selected Students; 900 out of 11000
Research Interests	• Micro and Nanofabrication • MEMS/NEMS • Biosensors/ Miniaturization of health care devices
Research projects	• **UNAM, Bilkent University, Ankara Turkey (2014-2016)** 1- Development of ZnO- Based Transparent Conducting Metal Oxides for Next Generation Applications on Flexible Substrates – UNAM- Bilkent University. 2- Dynamic Probing of Strain Dependent Electronic and Ionic Transport Properties in Oxides for Energy and Information Technologies - MISTI-GSF project – MIT joint Project. 3- Development of Next Generation Ferroelectric Oxide Films Using Ion Assisted DC/RF Sputtering System for Device Applications – Next Gen-Oxides. UNAM- Bilkent University. • **STRC, American University in Cairo / EGNC** 1- SWCNT/a-Si:H interface for transparent conductive electrode applications. (Sep. 2012- August 2013) • **Faculty of Pharmacy, Cairo University** 1- Dextran-Coated- Fe_3O_4 Magnetic Nanoparticle for an Immunoassay for recombinant human myelin protein (rhMBP) (Nov. 2011 – May. 2012) • **CNT, Nile University, Giza, Egypt** 1- Multiplexed detection of HCV & HBV using graphene – FRETbiosensor. (Nov. 2011 – Oct. 2012)
Technical Skills	• **Synthesis** **1-** Preparation of nanoparticles including; metallic, metal oxide and semi-conductors with different structures (e.g: spheres, rods, core-shell) **2-** Wet-bench Experience

	• **Fabrication – Clean Room Processes** **1-** Sputtering – Vaksis System. (UNAM) **2-** Thermal Evaporation – Vakisi System. (UNAM) **3-** Rapid Thermal Annealing (RTA) System. (UNAM) **4-** Plasma Asher system. (UNAM) **5-** Lithography and left-off processes **6-** Wet and dry Etching **7-** Mask Aligner – EVG620 (UNAM) **8-** Plasma Enhanced Chemical Vapor Deposition OXFORD Plasmalab1001. (AUC) **9-** Atomic Layer Deposition (ALD) – Cambridge Nanotech Savannah S100. (AUC) • **Characterization** **1-** Ellipsometer (V-VASE). (UNAM) **2-** Time Resolved Fluorescence. (UNAM) **3-** Multi-Purpose XRD – X'PERT System. (UNAM) **4-** X-Ray Photoelectron Spectroscopy (XPS) - X'PERT System. (UNAM) **5-** Stylus Profilometer. (UNAM) **6-** Semiconductor Parameter Analyzer & Probe Stations (UNAM) **7-** Scanning Electron Microscope (NanoSEM). (UNAM) **8-** Scanning Electron Microscope (SEM) - ZEISS - LEO SUPRA 55. (AUC) **9-** UV-Vis-NIR Spectrophotometer – Cary 5000. (UNAM) **10-** Atomic Force Microscopy – VECCO - Dimension 3100 AFM. (AUC) **11-** Raman Spectroscopy – ENWAVE OPTRONICS ProRaman-L. (AUC) **12-** Four Point Probe – Keithley. (AUC)
Training & Workshops	• One week Teaching Module Training in Sabanci University, "Backward Course Design" – Feb. 2017 • One week in Dr. Bilge Yildiz's Laboratories –MIT • 4th Clean Room workshop (2014) at UNAM, Bilkent University • Scanning Electron Microscope (SEM) in Youssef Jameel Science and Technology Research Center (STRC), American University in Cairo (AUC). • Fabrication of nanomaterial in NanoTech Labs, Egypt. • Transmission Electron Microscope (TEM), Nanotech Egypt.

Manuscripts Under Subscription	• Structural, optical, electrical, and mechanical properties of Ga:ZnO and In:Ga:ZnO thin films grown in room temperature and with substrate heating • Structural, optical, electrical, and mechanical properties of In:ZnO thin films grown in room temperature and low Substrate heating
Conferences	• TACT2015 International Thin Films Conference, Nov.15–18, 2015, National Cheng Kung University, Tainan, Taiwan (**Oral presentation**) • Bio-Vision Alexandria 2014, (07th -09th April 2014), Egypt • Nanotechnology-based Economy and its Applications", Nanotech Egypt, BAHGAT Group. (21st -23rd June 2011) – (**Poster)** • Bio-Vision Alexandria 2010, (11st -15th April 2010), Egypt • 2nd International Conference for Applications of Biotechnology, 17th – 18th October 2009 (MSA), Egypt
LANGUAGES	• **Arabic** : Native • **English**: ILETS: 6.5 , TOFEL: 92 • **French**: Basic • **Turkish**: Basic
Extracurricular Activities	• **"NU100" Judge** I was assigned as a technical Judge for NU100 National Entrepreneur-ship Competiton.NU100 is an entrepreneurship competition targeting individuals in the age bracket between 21 and 35, who have a technically feasible technological innovation that can be translated into a business. The com- petition is held by Nile University in Partnership with the Middle East Partnership initiative (MEPI) • **Workshop Organizer** Organizing the 5th and 6th Clean Room workshop at UNAM

All References are Available to be furnished upon request