Curriculum Vitae

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Professor Ahmad A. Ahmad (Omari), Ph.D.
Jordan University of Science and Technology
Faculty of Sciences and Arts
Department of Physics - Accredited by ABET

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- ***X-Head of the Department of Applied Physics***
- ***Honored by the Jordanian Physicists Association as a Distinguished Physicist in Jordan 2024.***
- ***Word's Top 2% Scientist in 2024 Rank based on Stanford/Elsevier's Top 2% Scientist Rankings.***
- **Google Scholar Citations: Ahmad Ali Ahmad (Omari) - Google Scholar**

- ***Ph.D.: Chemical & Materials Engineering + Physics of Thin Films and Nanotechnology, An Interdisciplinary Program (Double Majors)***
  University of Nebraska – Lincoln, 1996 – USA
- ***M.Sc.: Physics majored in Electronics***
  Delhi University, 1985 – India
- ***M.A. Diploma of Pease and Development, Political Science, 2002.***
- ***B.Sc.: Physics and Computers, Yarmouk University, Irbid – 1981 - Jordan***

- *Member of: Policy and Instrumentation Steering Committee at the Institute of Nanotechnology.*
- *Member and founder of the PhD Program in Materials Science at JUST, Jordan and Chemnitz Technical University, Germany.*
- *Rapporteur of the America Board for Engineering &Technology (ABET) accreditation for the Department Physics.*
- *Rapporteur of Committees including the Scientific Research, Graduate Studies,*
- *Promotion, Scientific Research, Study Plan Committee.*
- *(ABET) Committee.*
- *X-Member of Jordan University of Science and Technology Council.*

On Sabbatical leaves:

- *Academic Consultant of the University & Vice Dean of the Technical Community College ABET Accreditation Coordinator, University of Hafr Al Batin, Saudi Arabia.*
- *Academic Consultant and Training Coordinator /Hail University .*
- *Executive Counselor for Shaikh Ali Bin Mohammad Jomai'ah Center for Training and Social Service*
- *Rapporteur of the Standing Committee for Academic Programs and Study Plans, Hail University.*

(Selected) Awards & SCHOLARSHIPS

- Full Scholarship by Jordan University of Science and Technology for the Ph.D. program at the University of Nebraska-Lincoln (UNL) (1991-1996).
- Full teaching assistantship from the University of Nebraska-Lincoln, Nebraska, USA (1991-1993).
- Full research assistantship from the University of Nebraska-Lincoln, Nebraska, USA (1993-1996).

(Selected) EXPERIENCE, CAREER & OTHER ACTIVITES

- Teaching Assistance, the Department of Physics and Astronomy, University of Nebraska-Lincoln UNL, (1991-93).
- Research Assistance, the Department of Electrical Engineering and The Center for Microelectronics and Optical Materials Research (CMOMR), UNL (1993-96).
- Part-time English-Arabic "on call" Interpreter with the city, county and district courts, Lincoln Police Department and the Department of Social Services in Lincoln, Nebraska (1993-96).
- Assistant Professor, the Department of Physics, Jordan University of Science and Technology, Jordan (1996 -2008).
- Associate Professor, The Department of Physics, Jordan University of Science and Technology, Jordan (2008-2017).
- Full Professor, The Department of Physics, Jordan University of Science and Technology, Jordan (2017-till now).
- The Middle East Consultant and Representative for John A. Woollam Inc. Co. for Development and Instrumentation (Lincoln, Nebraska, U.S.A. (1996- ...).
- Research Visiting Professor at the Center for Microelectronics and Optical Materials Research (CMOMR) and the Department of Electrical Engineering, University of Nebraska-Lincoln, U.S.A., 1998.
    - Reviewer and Editor member of many international journals. (Other Activities)

Laboratory SKILLS

- **THIN FILMS FABRICATION AND NANNOTECHNOLOGY TECHNIQUES.**
    - rf and dc sputtering
    - Plasma-Enhanced Chemical Vapor Deposition technique (PECVD).
    - Electron Cyclotron Resonance (ECR) Thin Film Etching.
    - Thin Film Asher Utilizing Gas-Solid Films Interaction.
    - Electrochemical Deposition
    - Hydrothermal Processing of Nanoparticles.
    - Polymers and Nanocomposites
    - Catalysis and degradation, fuel cell, water treatment, …
- **THIN FILM CHARACTERIZATION TECHNIQUES**
    - Optical Characterization using Spectroscopic Ellipsometry, Spectrophotometer and Ellipsometry FTIR techniques.
    - Device characterization using the dc and ac I-V characteristics, thin film resistivity and C-V response. 4 point probe analysis.

- Microstructural analyses using XRD, AFM and Raman Back Scattering and EDAX.
- Thin film surface chemical analysis and skin depth profiling using the Auger Electron Spectroscopy (AES) technique.

RESEARCH OF INTEREST

- Optical coatings for transparent thin solid films (such as, but not limited to, ZnO, AlN, PbI2, Polymers, Diamond-like Carbon, Boron – doped DLC, BxC1-x, GaN, AlGaN, Amorphous, Polycrystalline and Crystalline Silicon, Iridium Oxide, … etc) for solar cells and energy storage, heat mirrors, encapsulate material, microelectronics applications.
- Thin film biomedical alloy coatings (such as diamond like carbon (DLC) and boron-doped DLC on (such as Titanium, Stainless steel).
- Fabrication of thin films (Boron carbides doped with nickel and DLC doped with boron) for heterojunction and homojunction devices (such as p-n diode and FET).
- Fabrication and characterization of polymeric thin films (PMMA, Azo dyes and BDK, PVA, ...) for electrical and optical applications.
- Spectroscopic Ellipsometry modeling and characterization for simple and complicated thin film samples and compound alloys.
- Electrical and optical properties of polymers.
- Catalytic and water treatment.
- Hydrogen production fuel cells.

AUTHOR AND RESEARCHER

1- Author for more than 150 scientific papers in different disciplines of science published in international, indexed and refereed journals
2- Supervisor and Co-supervisor more than 45 M.Sc. students.
3- Examiner and external examiner for many M.Sc. students.
4- Many conference papers.
5- Many national and internal research grants are going on.
6- Please see the google scholar citations for updates at: Ahmad Ali Ahmad (Omari) - Google Scholar.
7- Taught most of the undergraduate and graduate courses in the department of physics including M.Sc. Materials Characterization, M.Sc. Thin film Technology-I, II, M.Sc. Semiconductor Devices, M.Sc. Thin films: Deposition Techniques, optical and electrical characterization, Physics of Semiconductor Devices, Solid State Physics, Electronics (analogue and digital), Thermodynamics, Vibrations and Waves, …etc.

REFEREES: AVAILABLE UPON YOUR REQUEST.