

1. **Name:** M.-A. Hasan **Academic Rank:** Associate Professor

2. **Degrees:**

BS	University of Baghdad, Iraq	1978
MS	Likoping Institute of Technology, Sweden	1987
PhD	Likoping Institute of Technology, Sweden	1990

3. **UNC Charlotte (number of years = 21)**

- Associate Professor: 2000 – present
- Associate Professor: 1995 - 1999

4. **Other related experience:**

University of Illinois at Urbana-Champaign (number of years = 4)

- Research Assistant Professor, Electronic Materials Division, Coordinated Science Laboratory, Dept. of Materials Science and Engineering, University of Illinois at Urbana-Champaign (UIUC), USA, Sept. 1991- Aug. 1995

Linkoping Institute of Technology (number of years =1)

- Assistant Researcher, Institutionen för fysik, kemi och biologi (IFM), 1990-1991

5. **Certifications or professional registrations**

6. **Current membership in professional organizations**

- Materials Research Society, American Vacuum Society

7. **Honors and awards:**

- Postdoctoral fellowship from the Swedish Natural Science Research Council (NFR: Naturvetenskapliga forskningsrådet), 1992-1993.
- Welch Scholarship Award from the International Union of Vacuum Science, Technique and Applications (IUVSTA), 1991 -1992
- Postdoctoral fellowship from the Swedish Natural Science Research Council (NFR: Naturvetenskapliga forskningsrådet) 1991-1992.
- Postdoctoral fellowship from the Sweden-America Foundation (Sverige-America Stiftelsen), 1991-1992
- Student Travel Award from the Electronic Materials and Processing Division of the American Vacuum Society, 1990. (Toronto Meeting)
- Student Travel Award from the Thin Film Division of the American Vacuum Society 1986. (Baltimore meeting)
- Postgraduate Scholarship Award from Sabah Al-Salem Al-Sabah foundation (Kuwait) for partly supporting my Ph.D. study in Sweden. 1985-1987
- Deutscher Akademischer Austauschdienst (DAAD) [German Academic Exchange Service] scholarship, KFA (Nuclear Research Center) Jülich GMBH, Germany, July-September 1977 (During the third year of my undergraduate study).
- Top-Ten Award: during all four years of undergraduate studies.

8. **Institutional and professional service in the last five years:**

- UNC Charlotte ECE outreach committee, Reviewer for NSF and Scientific journals

9. Principal publications of last five years:

- New trends in wide bandgap semiconductors: Synthesis of single crystalline silicon carbide layers by low pressure Chemical vapor deposition Technique on p-type silicon (100 and/or 111) and their characterization, M. Asghar, F. Iqbal, Adnan Ali, A. Mehmood, M. Yasin A. Raja, Awad. S. Gerges, S. Baang and M.A. Hasan (2010) , Key Engineering Materials, 442 , 195-99 (2010).
- Origin of ultraviolet luminescence from bulk ZnO thin films grown by molecular beam epitaxy, Muhammad Asghar, Khalid Mahmood, Adnan Ali, M.-A. Hasan, I. Hussain and M. Willander. *Advanced Engineering Forum*, 1, 135-139 (2011)
- Study of substrate induced deep level defects in bulk GaN layers grown by molecular beam epitaxy using deep level transient spectroscopy. M. Ajaz-un-Nabi, M. Imran Arshad, A. Ali, Muhammad Asghar and M-A Hasan. *Advanced Materials Research*, 295-297, 777-780 (2011)
- Influence of deep level defects on the performance of crystalline silicon solar cells: Experimental and simulation study. Adnan Ali, Terence Gouveas, M.-A. Hassan, Saleem H. Zaidi and Muhammad Asghar *Solar Energy Materials & Solar Cells*, 95, 2805-2810 (2011)
- Role of Zn-interstitial defects in the ultraviolet emission from ZnO. Muhammad Asghar, K. Mahmood, A. Ali, M.-A Hasan, M.Y. Raja, I. Hussain and M. Willander, *ECS-Transactions*, 35(6), 149-154. (2011)
- Effect of Substrate Temperature on the Structural and Electrical Properties of MBE Grown ZnO. Muhammad Asghar, Khalid Mahmood and M. A. Hasan . Key Engineering Materials, 510-511, 132-136. (2012)
- Comparative Study of Temperature Dependent Barrier Heights of Pd/ZnO Schottky Diodes Grown along Zn- and O-Faces, M. Asghar, Khalid Mahmood, Adnan Ali, P. Klason, M-A Hasan, Q Wahab and Magnus Willander, Key Engineering Materials, (510 – 511), 265-270 (2012)
- Investigation of Source of N-Type Conductivity in Bulk ZnO. Muhammad Asghar, Khalid Mahmood and M. A. Hasan. *Key Engineering Materials*, 510-511, 227-232 (2012).
- Investigation of V_O -Zn_i intrinsic donors of ZnO under hot environment of oxygen and zinc, M Asghar, K Mahmood, I T Ferguson, M Yasin A Raja, Y H Xie, R Tsu and M-A Hasan. *J. Semicond. Sci. and Technol.*, 28, 105019 (2013)
- Growth and interface properties of Au Schottky contact on ZnO grown by molecular beam epitaxy, Muhammad Asghar, K. Mahmood, F. Malik and M-A Hasan. *The Journal of Physics*, 439, 012030 (2013).
- Electrical characterization of Au/ZnO/Si Schottky contact. Muhammad Asghar, K. Mahmood, F. Malik and M-A Hasan (2013). *The Journal of Physics*, 439, 012031
- Synthesis and characterization of ZnO nanorods using molecular beam epitaxy, Muhammad Asghar, K. Mahmood, Y. Raja and M.-A. Hasan. *Advance Materials Research*, 622-623, 919-924 (2013).
- Characterization of deep acceptor level in bulk ZnO grown by molecular beam epitaxy, M. Asghar, K. Mahmood, R. Tsu, M-A Hasan, I. Ferguson, *Chin Phys B*, 23, 097101-06 (2014)

10. Professional development activities in the last five years:

- Participated in National and International conferences