

1. **Name:** Abasifreke Ebong **Academic Rank:** Professor

2. **Degrees:**

BS	University of Port Harcourt	1984
MS	University of Port Harcourt	1987
PhD	University of New South Wales	1995

3. **UNC Charlotte (number of years = 5)**

- Professor: 2011 - present
- Adjunct Professor, Department of Physics and Optical Science, 2012-present

4. **Other related experience:**

- Assistant Director: University Center of Excellence for Photovoltaic and Education (UCEP), Georgia Institute of Technology, Atlanta, GA. 2004 – 2011
- Engineer: GE Global Research Center, Niskayuna, NY. 2001 – 2004
- Research Engineer II: University Center of Excellence for Photovoltaic and Education (UCEP), Georgia Institute of Technology, Atlanta, GA. 1997 – 2001
- Post-Doctoral Fellow: Samsung Electronics: 1995 – 1997
- Graduate Research Assistant: University of New South Wales, Australia. 1990-1995
- Lecturer II: University of Port Harcourt, Nigeria. 1988-1990
- Assistant Lecturer: University of Port Harcourt, Nigeria. 1987-1988

5. **Certifications or professional registrations:** N/A

6. **Current membership in professional organizations**

- IEEE (Senior Member), IEEE HKN Society (2013 – present)

7. **Honors and awards:**

- 42nd IEEE PVSC best poster award in silicon solar cell for the paper entitled: “Investigating the Benefits of Multi Bus-bars for Industrial Al-BSF Silicon Solar Cells”. June 2015.

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

- College of Engineering Reassignment of Duties Committees; 2015-2016
- UNC Charlotte ECE Department Review Committee, 2015 - present.
- University Undergraduate Research Committee, 2014 - present.
- University Committee Faculty Council, 2015-present.
- IEEE Charlotte Section Counselor, 2014 – present.

9. **Principal publications of last five years:**

- Yang, L., Ye, H.Q., **Ebong, A.**, Song, W. T., Zhang, G. J., Wang, J. X., and Ma, Y., “High efficiency screen printed bifacial solar cells on monocrystalline CZ silicon” Progress in Photovoltaic Research and Applications, Vol. 19 (3) 275-279, May 2011.
- Kang, M. H., Hong, J., Cooper, I., **Ebong, A.**, Rounsaville, B., and Rohatgi, A., “Reduction in Light Induced Degradation (LID) in B-doped Cz-Si Solar Cells with SiC_xN_y Antireflection (AR) Coating” Journal of The Electrochemical Society, 158 (7) H724-H726, 2011.
- **Ebong, A.**, Cooper, I., Rounsaville, B., Rohatgi, A., Dovrat, M., Kritchman, E., Brusilovsky, D., and Benichou, A., “Capitalizing on the glass-etching effect of silver plating chemistry to contact Si solar cells with homogeneous 100-110 Ω/sq emitters”, IEEE Electron Device Letters, vol. 32, No. 6, 779-781, 2011.

- Chen, C. W., **Ebong, A.**, Tate, K., Zimbardi, F., Rohatgi, A., and Finot, M., “Development and understanding of high efficiency screen-printed concentrator silicon solar cells”, IEEE Journal of Photovoltaics, vol.1, No.2, 231-235, December 2011.
- Moon Hee Kang; Ajeet Rohatgi; Junegie Hong; Brian Rounsaville; Vijaykumar Upadhyaya; **Ebong, Abasifreke**; Arnab Das “Effect of carbon containing SiNx antireflection coating on the screen-printed contact and low illumination performance of silicon solar cell”, Progress in Photovoltaics: Research and Applications: Vol. 21, no. 3, 351-358, 2013.
- **Ebong, A.**, Cooper, I.B., Rounsaville, B., Rohatgi, A., Dovrat, M., Kritchman, E., Brusilovsky, D., and Benichou, A., “On the ink jetting of full front Ag gridlines for cost-effective metallization of silicon solar cells” IEEE Electron Device Letters, Vol. 33, no. 5, 637-639, 2012.
- **Ebong, A.** “Pathway to low-cost metallization of silicon solar cell through understanding of the silicon metal interface and plating chemistry”, Electrochimica Acta 128, pp336–340, 2014
- Azarbayjani, M., Futrell B., Cecchi V., Gentry T., **Ebong, A.**, “The road map to the integrated design process of a net-zero energy solar house: A case study of a solar decathlon completion entry”, Journal of Green Building, Vol. 9 (2), 20-37, 2014.
- **A. Ebong**, “Understanding the uniqueness of the inkjet metallization of multicrystalline silicon solar cell”, Jpn. J. Appl. Phys. 54, 08KD24 (2015)
- B. Hussain, **A. Ebong**, and I. Ferguson, “Zinc Oxide as an Active n-Layer and AR Coating for Silicon Based Heterojunction Solar Cell” Solar Energy Materials and Solar Cells, Vol. 139, pp.95-100, 2015.
- N. Chen , K. Tate , and **A. Ebong**, “Generalized Analysis of the Impact of Emitter Sheet Resistance on Silicon Solar Cell Performance” Japanese Journal of Applied Physics 54, 08KD20, 2015.
- B. Hussain and **A. Ebong**, “Specifications of ZnO growth for heterostructure solar cell and PC1D based simulations”, Data in Brief, [Volume 5](#), Pages 516–521, December 2015
- B. Hussain and A. Ebong, “Specifications of ZnO growth for heterostructure solar cell and PC1D based simulations”, Data in Brief, [Volume 5](#), December 2015, Pages 516–521
- N. Chen and A. Ebong, ‘Towards 20% Efficient Industrial Al-BSF Silicon Solar Cell with Multiple Busbars and Fine Gridlines” Solar Energy Materials and Solar Cells, Vol. 146, March 2016, Pages 107–113.

10. Professional development activities in the last five years:

- IEEE SoutheastCon Conference -Technical Program: 2012-2014.
- IEEE EKN - Counselor, 2015-present.