

Curriculum Vitae

Personal Information:

- **Name:** OSAMAH ABDULLAH S ALSALMAN
- **Nationality:** Saudi.
- **E-mail:** Oalsalman@ksu.edu.sa

Education :



PhD Degree in Electrical and Electronic Engineering from The University of Manchester in 2021.



Master's Degree in Electrical and Computer Engineering from University of Michigan, Ann Arbor in 2017.



Bachelor's degree (First class honor) from King Saud University, Electrical Engineering in 2014.

Work Experience:

- Manager of the Quality Initiatives at Vice President for Graduate Studies and Scientific Research Office from Sep 2024 – present.
- Coordinator of the Scientific Research Unit at the College of Engineering at King Saud University from Feb 2024 – present.
- Coordinator of the Demonstrator, Lecturers and Scholars Affair Unit at the College of Engineering at King Saud University from Feb 2024 – present.
- Coordinator of the Computer Center at the College of Engineering at King Saud University from Oct 2023 – present.
- Coordinator of the Electronics Group at Electrical Engineering department, College of Engineering, KSU from 2022 – 2025.
- Assistant Professor at Electrical Engineering department, College of Engineering, KSU from 2021 – present.
- Demonstrator at Electrical Engineering department, College of Engineering, KSU from 2014 – 2021.

Committee Membership:

- Member of the Council of King Abdullah Institute for Nanotechnology (KAIN) from 20/05/2024 – present.
- Member of the Council of the Joint Program for the Master of Science in Applied Nanoscience and Technology from 02/01/2024 – present.
- Member of the Electrical Engineering Department Council, KSU from 2021 – present.

- Coordinator of the Electrical Engineering Curriculum Committee in KSU from 2021 – 2025.
- Member in Graduates Affairs Committee in Electrical Engineering, KSU from 2021 – 2024.
- Member in Graduate Studies and Scientific Research Committee in Electrical Engineering, KSU from 2021 – 2024
- Member in Fresh Engineering Counseling Unit in KSU from 2022 – 2024.

Skills:

- Social, ambitious, flexible, hard-working, and quick learner.
- Software: Matlab, Silvaco, COMSOL, Lumerical, SCAPS-1D and Homer Pro.
- Experienced writing in academic, technical and informal styles.

Honors and Awards:

- Certificate of Appreciation for publishing in Top 5% and 10% journals from Deanship of Scientific Research, KSU in 2024
- Won the best presented poster award in The Enlighten Conference, Coventry, UK in 2019.
- Earned the BAE Systems internal scholarship award at the college of engineering at KSU in 2011.
- Excellence awards from Electrical Engineering department at KSU from 2011 to 2013.
- Certificate of achievement of Power Positive Thinking from the World Academy of Educational Information in 2009.
- Certificates of excellence as top student in Riyadh schools from the Ministry of Education, from 2006 to 2008.

Workshops and Projects:

- Principal Investigator of the Research Fellowship project titled: “Optimization Control of Hybrid Renewable Energy System” which is supported by King Abdullah City for Atomic and Renewable Energy (K.A.CARE) in 12/2023 – 09/2024.
- Participation in a workshop titled: “Red Palm Weevil Solutions Project” organized by the Ministry of Environment, Water and Agriculture, which was held at the Ministry’s headquarters on Wednesday, 27/03/2024,.
- Master’s project: April 2016: Tandem CIGS / Perovskite Solar Cell and System Simulation.
- Project: April 2016: Sentaurus Simulation for Junctionless Transistor.
- Bachelor's project: Sep. 2013 - Jun. 2014: A Grid Connected PV Power System using KSU Parking Lots.
- Participated in the VEX and LEGO workshops in King Abdulaziz City for Science and Technology for robotics in 2013.

Conferences:

- Presented a poster with the title “*Fano line-shapes, electromagnetically induced transparency and anti-crossing effects in coupled microring resonators system*” in The Enlighten Conference in Coventry, UK, 2019.
- Presented a poster with the title “*Fano line-shapes, optically induced transparencies and anti-crossing effects in 3×3 Coupler Based Dual Microring Resonators*” in The Enlighten Conference in Coventry, UK, 2018.

List of Publications:

- **Alsaman, O.**, Han, B. B., & Patel, S. K. (2024). Graphene-based solar absorber structure using GaAs-Al-Zr materials for renewable energy application. *International Journal of Thermal Sciences*, 200, 108979.
- Zhu, C., **Alsaman, O.**, & Huang, J. (2024). Cascaded Weak Reflector Coaxial Cable Structure for Point and Distributed Large-Strain Sensing. *IEEE Sensors Journal*.
- Naku, W., **Alsaman, O.**, Huang, J., & Zhu, C. (2024). Segmented Fiber Optic Sensors Based on Hybrid Microwave-Photonic Interrogation. *Journal of Lightwave Technology*.
- Li, S., **Alsaman, O.**, Naku, W., & Zhu, C. (2024). Sensitivity-improved Fiber Bragg Grating Temperature Sensor based on Microwave-Photonic Enhanced Vernier Effect. *IEEE Sensors Journal*.
- Agravat, D., Patel, S. K., & **Alsaman, O.** (2024). Nanostructured metal-oxide materials for solar energy absorption and conversion for industrial heater applications. *International Journal of Thermal Sciences*, 200, 108951.
- **Alsaman, O.**, & Crowe, I. (2023). A Design of a Novel Silicon Photonics Sensor with Ultra-Large Free Spectral Range Based on a Directional Coupler-Assisted Racetrack Resonator (DCARR). *Sensors*, 23(11), 5332.
- **Alsaman, O.**, Wekalao, J., Arun Kumar, U., Agravat, D., Parmar, J., & Patel, S. K. (2023). Design of Split Ring Resonator Graphene Metasurface Sensor for Efficient Detection of Brain Tumor. *Plasmonics*, 1-10.
- Zhu, C., **Alsaman, O.**, & Huang, J. (2023). From fiber Bragg gratings to coaxial cable Bragg gratings: One-dimensional microwave quasi-periodic photonic crystals. *Journal of Applied Physics*, 133(16).
- Patel, S. K., Agravat, D., **Alsaman, O.**, Surve, J., Taya, S. A., & Parmar, J. (2023). Numerical analysis of wideband solar absorber using thick film with glassy material, resonator and back reflector. *Optical and Quantum Electronics*, 55(9), 754.
- Zhu, C., Zheng, H., **Alsaman, O.**, Naku, W., & Ma, L. (2023). Simultaneous and Multiplexed Measurement of Curvature and Strain Based on Optical Fiber Fabry-Perot Interferometric Sensors. In *Photonics* (Vol. 10, No. 5, p. 580). MDPI.
- Patel, S. K., Han, B. B., **Alsaman, O.**, Taya, S. A., & Parmar, J. (2023). Multi-layered Ti-Si solar absorber design based on tungsten material for solar thermal energy conversion. *International Journal of Thermal Sciences*, 192, 108419.

- Zhu, C., Jie, R., **Als Salman, O.**, Zheng, H., Naku, W., Liu, B., & Ma, L. (2023). Multi-Point Optical Fiber Fabry-Perot Curvature Sensor Based on Microwave Photonics. *Journal of Lightwave Technology*.
- Patel, S. K., Surve, J., Htay, M. M., **Als Salman, O.**, Parmar, J., & Nguyen, T. K. (2023). Graphene Metasurface Inspired Cyanide Detecting Sensor with Encoding capabilities of Two, Three, and Four Bits. *IEEE Sensors Journal*.
- Zhu, C., **Als Salman, O.**, & Naku, W. (2023). Machine learning for a Vernier-effect-based optical fiber sensor. *Optics Letters*, 48(9), 2488-2491.
- Patel, S. K., Han, B. B., **Als Salman, O.**, Taya, S. A., & Parmar, J. (2023). Graphene-based diamond-shaped solar absorber using Fe–SiO₂–Fe structure for UV to MIR region. *International Journal of Thermal Sciences*, 192, 108457.
- Wu, Y., Wang, R., Lin, R., Xu, X., Zhang, X., **Als Salman, O.**, ... & Ouyang, X. (2023). Excited-state intramolecular proton transfer emitter for efficient violet-blue organic light-emitting diodes with hybridized local/charge transfer channel. *Chemical Engineering Journal*, 465, 142929.
- Han, B. B., **Als Salman, O.**, Surve, J., Parmar, J., Taya, S., & Patel, S. K. (2023). Compact size Zr–Fe₂O₃ inspired metal-dielectric angle and polarization insensitive nanostructure for efficient solar energy absorption. *International Journal of Thermal Sciences*, 190, 108330.
- Patel, S. K., Agravat, D., **Als Salman, O.**, Surve, J., Crowe, I., Taya, S., & Nguyen, T. K. (2023). Design of a broadband solar absorber based on Fe₂O₃/CuO thin film absorption structure. *Optical and Quantum Electronics*, 55(5), 430.
- Leo Tsui, H. C., **Als Salman, O.**, Mao, B., Alodhayb, A., Albrithen, H., Knights, A. P., ... & Crowe, I. F. (2020). Graphene oxide integrated silicon photonics for detection of vapour phase volatile organic compounds. *Scientific Reports*, 10(1), 9592.