APPENDIX B – FACULTY VITAE
Name: Kaesar Sabah Khalaf
E-mail: kaesarsabah@ntu.edu.iq

1. **Education:**
   - M.Sc., Electronics Engineering, South Ural State University, Russia, June 2017
   - B.Sc., Electronic and control, Northern technical university, Iraq, July 2009

2. **Academic Experience:**
   - Assistant Head of Electronics and Control Engineering Department, Northern Technical University, Technical Engineering College, Iraq (2019 – Present)
   - Faculty member and lecturer, Technical Engineering College, Kirkuk, Iraq (23/06/2017 - Present)

3. **Principal Publications and Presentations of Past Five Years:**
   - Sharif, M. A., **Khalaf, K. S**., & Omer, M. A. (2023). A Simulation Model of a System-based Concentrated Solar Power System (CSP) by Using COMSOL Software. NTU Journal of Renewable Energy, 4(1).
   - Kaesar Sabah Khalaf, Montassar Aidi Sharif, Mahmoud Shakir Wahhab, "Digital communication based on image security using grasshopper optimization and chaotic map," International Journal of Engineering, 2022; 35(10): https://www.ije.ir/article_153101_7c1b3f07664b134d38aeec40d7838d10.pdf
   - Montassar Aidi Sharif, Mahmoud Shakir Wahhab, and, **Kaesar Sabah Khalaf** "Practical Performance Investigation of the Solar (PV) Panel System of the Electronic and Control Engineering Department –Kirkuk," 2nd International Multi-Disciplinary Conference: "Integrated Sciences and Technologies, Sep 7-9, 2021.
   - Montassar Aidi Sharif, **Kaesar Sabah Khalaf**, and Mahmoud Shakir Wahhab "Design and a Sweep Finite Element Analysis (FEA) Study of a Microstrip Patch Antenna." Design Engineering (2021): 2147-2156.
   - **Khalaf, K. S**. (2024, March). Photovoltaic cell: Modeling and Fe analysis for electrical performance. In *AIP Conference Proceedings* (Vol. 2885, No. 1). AIP Publishing.

4. **Miscellaneous:**

Computer Skills:
   - Microsoft Office
   - Matlab/Simulink/GUI
   - Multisim
   - LabVIEW
   - Visual Basic
   - AUTOCAD (2D/3D)

Languages:
   - Arabic – native language
   - English – speaking, reading, and writing.
   - Russian - speaking, reading, and writing.

Other:

5. **Publications:**

I. Patent:
   - Super-Coiled Artificial Muscles Activated by Hot Water, Montassar Aidi Sharif, Muntadher Aidi Shareef, **Kaesar Sabah Khalaf**, Sumaya Falih Hasan, Anmar Aidi Shareef

II. Journals

- Sharif, M. A., **Khalaf, K. S.**, & Omer, M. A. (2023). A Simulation Model of a System-based Concentrated Solar Power System (CSP) by Using COMSOL Software. NTU Journal of Renewable Energy, 4(1).
- **Kaesar Sabah Khalaf**, Montassar Aidi Sharif, Mahmoud Shakir Wahhab, "Digital communication based on image security using grasshopper optimization and chaotic map," International Journal of Engineering, 2022; 35(10): https://www.ije.ir/article_153101_7c1b3f07664b134d38aeec40d7838d10.pdf
- Montassar Aidi Sharif, Mahmoud Shakir Wahhab, and, **Kaesar Sabah Khalaf** "Practical Performance Investigation of the Solar (PV) Panel System of the Electronic and Control Engineering Department –Kirkuk," 2nd International Multi-Disciplinary Conference: "Integrated Sciences and Technologies, Sep 7-9, 2021.
- Montassar Aidi Sharif, **Kaesar Sabah Khalaf**, and Mahmoud Shakir Wahhab "Design and a Sweep Finite Element Analysis (FEA) Study of a Microstrip Patch Antenna." Design Engineering (2021): 2147-2156.
- Alabdullah, M. G. K., Atiyah, B. M., **Khalaf, K. S**., & Yadgar, S. H. (2019). Analysis and simulation of three MANET routing protocols: A research on AODV, DSR & DSDV characteristics and their performance evaluation. Periodicals of Engineering and Natural Sciences, 7(3), 1228-1238.
- Yadgar, S. H., Alabdullah, M. G. K., Atiyah, B. M., & **Khalaf, K. S**. (2019). Unicast based reactive & proactive routing simulation in MANET: A comparative study for protocols in mobility scenarios. *Periodicals of Engineering and Natural Sciences*, *7*(4), 1977-1989.

III. Conferences

- **Khalaf, K. S.** (2024, March). Photovoltaic cell: Modeling and Fe analysis for electrical performance. In AIP Conference Proceedings (Vol. 2885, No. 1). AIP Publishing.