



Dr. A. Maheshwari
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BIOSKETCH

Dr. A. Maheshwari is currently working as an Assistant Professor in the Department of Mechatronics at PSG Institute of Advanced Studies, Coimbatore from July 2026. She received BE degree in Electronics and Communication Engineering from Thanthai Periyar Government Institute of Technology, Vellore, India, in 2011, ME degree in Power Electronics and Drives from Alagappa Chettiar Government College of Engineering and Technology, Karaikudi, India in 2014, PhD degree in the Faculty of Electrical Engineering under Anna University, Chennai, India in 2023. She had 6 years of teaching experience.

Educational Profile

- **Doctor of Philosophy (Ph.D.) in Electrical Engineering**
Year of Passing: 2023
Thesis title: Optimal Extended Kalman filter based State of Charge estimation for electric vehicle batteries
Thesis Supervisor: Dr. S. Nageswari, Department of EEE,
Alagappa Chettiar Government College of Engineering and Technology, Karaikudi, India
- **Master of Engineering (ME) in Power Electronics and Drives**
Alagappa Chettiar Government College of Engineering and Technology, Karaikudi, India
- **Bachelor of Engineering (BE) in Electronics and Communication Engineering**
Thanthai Periyar Government Institute of Technology, Vellore, India

Positions Held

July 2026 – Present	Assistant Professor Department Mechatronics PSG Institute of Advanced Studies Peelamedu, Coimbatore.
Aug 2022 – June 2024	Assistant Professor Department of Electronics and Communication Engineering M Kumarasamy College of Engineering Karur, tamilnadu.

Jan 2019 – Aug 2022	Teaching Research Assistant, Department of EEE, Alagappa Chettiar Government College of Engineering and Technology, Karaikudi, India
June 2014 – Jan 2019	Assistant Professor (ADHOC) Department of EEE, Alagappa Chettiar Government College of Engineering and Technology, Karaikudi, India

Research Areas

- Power electronics and drives,
- Battery modelling and state estimation,
- Embedded systems,
- Electric Vehicle,
- MPPT algorithm

Awards & Achievements

- Received a **Certificate of Recognition** from Anna University for publishing the research articles in Q1 journals during the course of PhD under Faculty of Electrical Engineering

Membership in Professional Society

- IETE Lifetime member

Journal Publications

- **Maheshwari, A & Nageswari, S** 2021, 'Modeling, state of charge estimation, and charging of lithium-ion battery in electric vehicle: A review', **International Journal of Energy Research**, vol. 46, no. 3, pp. 2141-2165. DOI:10.1002/er.7339, ISSN: 0363 907X, SCI-Q1, Impact Factor:4.6.
- **Maheshwari, A & Nageswari, S** 2022, 'A real time state of charge estimation using Harris Hawks optimization-based filtering approach for electric vehicle power batteries', **International Journal of Energy Research**, vol.46, no. 7, pp. 9293-9309. DOI:10.1002/er.7806, ISSN: 0363-907X, SCI-Q1, Impact Factor:4.6.
- **Maheshwari, A & Nageswari, S** 2022, 'Real-time state of charge estimation for electric vehicle power batteries using optimized filter', **Energy**, vol.254, pp.1-15, DOI: 10.1016/j.energy.2022.124328, SCI-Q1, Impact Factor: 9.
- **Maheshwari, A & Nageswari, S** 2023, 'Effect of noise covariance matrices on State of Charge estimation using Extended Kalman filter', **IETE Journal of Research**, vol.69, no.11, pp. 8130-8141. DOI:10.1080/03772063.2022.2055657, ISSN: 0377-2063, SCI Q3, Impact Factor:1.5.
- **Maheshwari, A, Nageswari, S, Durgadevi R, Karthikeyan B, Sundararaj K, Palanisamy R, et al.** 2024, 'Arithmetic optimization based MPPT for photovoltaic systems operating under

nonuniform situations’, **PLoS ONE**, vol. 19, no. 12: e0311177. DOI: 10.1371/journal.pone.0311177, SCI-Q1, Impact Factor: 2.9.

- **Maheshwari, A.**, Nageswari, S., Palanisamy, R., Karthikeyan, B., Mahmoud, M.M., Wapet, D.E.M., El-Rifaie, A.M., Touti, E. and Omar, A.I. 2025, ‘Real-Time Parameter Identification and State of Charge Estimation of Electric Vehicle Batteries’, **Engineering Reports**, vol. 7, no. 8, pp. 1-15. DOI: 10.1002/eng2.70346, SCI-Q2, Impact Factor: 2.0.
- **Maheshwari, A.**, Nageswari, S., Balamurugan, S., Karthikeyan, B., Palanisamy, R. 2026 ‘Impact analysis of nonlinear Kalman Filter parameters on state of charge estimation for electric vehicle batteries’, **Energy Exploration & Exploitation**, vol. 44, no. 1, pp. 86-103. DOI:10.1177/01445987251361943, SCI-Q2, Impact Factor: 1.6

Total Number of Conference Papers/Proceedings: 08