FACULTY PROFILE

Mr. F. Max Savio, M.E., (Ph.D.)
Assistant Professor (O.G.) – EEE

HIGHLIGHTS:

- Journals: 19 (WoS/ScI: 5; Scopus: 3; Google Scholar: 11)
- Conferences: 8 (Scopus: 6)
- Book Chapters: 2 (WoS/ScI: 2)
- h-Index: 3
- Patents Published: 4
- Patents Granted: 1

PROFESSIONAL LINKS:

- Scopus: 56993535700
- Google Scholar: F MAX SAVIO
- Anna University Faculty ID: 6218134
- AICTE Faculty ID: 1-4643353234
- ResearchGate: Max-Savio
- Web of Science: GNH-2301-2022
- ORCID: 0000-0002-6886-5874
- LinkedIn: maxsaviofrancis
- GitHub ID: fmaxsavio
- Research ID: fmaxsavio

PROFESSIONAL BACKGROUND:

- Teaching Experience (till date): 12 years
- Industrial Experience: 3 years

QUALIFICATION:

Degree	Specialization	University/Institute	GPA	YoP	Class
Ph.D.	Faculty of Electrical Engineering	Madras Institute of Technology, Anna University, Chennai	-	Pursuing	
PG Certificate	3D Printing and Additive Manufacturing	Indian Institute of Information Technology, Tiruchirappalli	8.57	2024	-
M.E.	Power Electronics and Drives	Jeppiaar Engineering College, Anna University, Chennai	8.20	2013	First Class

B.E.	Electrical and Electronics Engineering	Jeppiaar Engineering College, Anna University, Chennai	72%	2007	First Class

AREA OF SPECIALIZATION:

- Power Electronics
- Advance Optimization Techniques

AREA OF INTEREST:

- Power Electronics and Drives
- Quantum Computing

SOFTWARE EXPOSURE:

- MATLAB 2024
- PLECS 4.7.3
- Autodesk Fusion 360
- CATIA V5R21
- JavaScript

PEER-REVIEW EXPERIENCE:

- International Journal of Power Electronics and Drive System (SCOPUS) – 03 research articles
- Konya Journal of Engineering Sciences (DergiPark) (SCOPUS) – 01 research article
- International Journal of Energy Studies (DergiPark) (SCOPUS) – 01 research article

JOURNAL PUBLICATIONS:

ScI/WoS:

1) **Max Savio,** Kalpana Dharmalingan, Kamal Chakkarapani, "A Dual-Mode Ineterleaved Bridgeless Converter with Improved Efficiency for Electric Vehicle Battery Charger", Journal of Electrical Engineering and Technology, vol. 20, no.6, Sept 2025 (DOI: https://doi.org/10.1007/s42835-025-02476-z) **[SJR: 1.6; SNIP: 0.889; Q2; ScI/WoS]**
2) V. Janakiraman, **Max Savio**, Abdullah N. Alodhayb, Muthumareeswaran Muthuramamoorthy, M. Ammal Dhanalakshmi, M. Vimalan, Mathivanan Durai, and K. Ganesh Kumar, "Impact of LLZO Electrolytes Doped with Ta5+ and Their Structural and Electrical Characteristics for Solid-State Energy Storage Applications", Journal of Materials Science: Materials in Electronics, vol.36, no. 309, pp. 1-16, Feb 2025 (DOI: https://doi.org/10.1007/s10854-025-14362-5) **[SJR: 0.512; SNIP: 0.696; Q2; ScI/WoS]**
3) **F. Max Savio**, S. Vinson Joshua, K. Usha, Muhammad Faheem, Raju Kannadasan, Arfat Ahmad Khan, "Design of a Solar-Wind Hybrid Renewable Energy System for Power Quality Enhancement- A case study of 2.5 MW Real time Domestic Grid", Engineering

Reports, vol. 7, no.1, pp. 1-18, Jan 2025 (DOI: https://doi.org/10.1002/eng2.13101) **[SJR: 0.409; SNIP: 0.879; Q2; ScI/WoS]**

4) Naveen Kumar Elangovan, Raju Kannadasan, **Max F. Savio**, S. Vinson Joshua, Muhammad Faheem, "The influence of methylammonium iodide concentration on the properties of perovskite solar cells" Energy Sciences & Engineering, (2024) No. 12, pp.2004-2016 (DOI: https://doi.org/10.1002/ese3.1724) **[SJR: 0.77; SNIP:0.922; Q2; ScI/WoS]**
5) Lakshmana Perumal Pattathurani, Subhransu S. Dash, Rajat K. Dwibedi, Mani Devesh Raj, Raju Kannadasan, **Max F. Savio**, Mohammed H. Alsharif and James Hyungkwan Kim, "Harmonics Minimisation in Non-Linear Grid System Using an Intelligent Hysteresis Current Controller Operated from a Solar Powered ZETA Converter", Sustainability, (2022) Vol 14, 2022, pp.1-14 (DOI: https://doi.org/10.3390/su14127028) **[SJR: 3.3; SNIP: 1.086; Q1; ScI/WoS]**

Scopus:

1) **Max Savio** and Sasikumar Murugesan, "Harmonic Evaluation of Z-Source PWM Inverter for Wind Powered Industrial Drive Applications", International Journal of Electrical Engineering and Informatics, (2014) Vol. 6, No. 1, pp. 129 – 143 (DOI: *10.15676/ijeei.2014.6.1.9)* **[SJR: 0.28; SNIP: 0.502; Q3; Scopus]**
2) Sasikumar Murugesan, **Max Savio**, "Space Vector Control Scheme of Three Level ZSI Applied to Wind Energy Systems", International Journal of Engineering, Transactions: C, (2012) Vol.25, No.4, pp.275-282 **[SJR: 0.35; Q3; Scopus]** *(Download)*
3) **Max Savio**, Sasikumar Murugesan, "A high efficient fuzzy logic controlled maximum power point tracking (FLMPPT) in solar PV for brushless DC motor drives", ARPN Journal of Engineering and Applied Sciences, (2015), Vol. 10, No.4, pp.1756-1761. **[SJR: 0.15; SNIP: 0.231; Q4; Scopus]** *(Download)*

Google Scholar (non-Scopus):

1) **F. Max Savio**, C. Rajesh Kumar, Design of Indirect Matrix Converter for Single Input-Dual Output Applications", (2018) International Journal of Management, Technology and Engineering, Vol.8, No.12, pp.3810 – 3817 *(Download)*
2) **Max Savio**, "Speed Control of DC Drive using SEPIC Converter in Solar Power Application using Closed Loop Fuzzy Logic Controller (FLC)", American Journal of Electrical and Electronic Engineering, (2016) Vol. 4, No. 3, pp.75-80 (DOI:10.12691/ajeee-4-3-1)
3) **Max Savio**, "Mathematical Modelling of SEPIC Converter with Continuous Conduction Mode (CCM) for Solar Maximum Power Tracking Application", Asian Journal of Current Engineering & Maths, (2015), Vol4, No.6, pp.78-82 *(Download)*
4) **Max Savio**, "Performance Investigation of Improved High Step-up MPPT using Fuzzy Logic Controller for BLDC Motor Drives", IOSR Journal of Electrical and Electronics Engineering, (2015) *Vol.10, No.5, pp.101.108. (Download)*

5) **Max Savio**, "A Predictive Solution to Unbalanced-Voltage Problem in Wind Turbine Using Four-leg Indirect Matrix Converter", International Journal for Research in Applied Science & Engineering Technology, (2015) Vol.3, No.3, pp. 190-195. *(Download)*
6) **F. Max Savio**, "A Low Harmonic Drive System using ZSI for a Variable Speed Wind Turbine", International Journal of Engineering Trends and Technology, (2014) Vol.17, no.7, pp.315-320 *(Download)*
7) **Max Savio**, Sasikumar Murugesan, "A Supervisory Predictive Control using Indirect Matrix Converter for a Variable Speed Wind Energy Conversion System", International Refereed Journal of Engineering and Science, (2013) Vol.2, No.10, pp. 30-47 *(Download)*
8) **Max Savio**, Hemantha Kumar, Sasikumar Murugesan, "Power Optimisation and Performance Evolution of High Step-Up Solar PV System for DC Drives", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering. (2013), Vol.2, No.10 *(Download)*
9) S. Sellakumar, M. Vijayakumar, **F. Max Savio**, "The Improvement of Power Factor In A Distribution System Using Hybrid Shunt Active Filter", Wulfenia (2013), Vol.20, No.3 *(Download)*
10) **Max Savio**, Vasantharaj, Sasikumar Murugesan, "A SVM Control Scheme for Impedance Source Inverter-Based Wind Driven SEIG Fed Motor Drives", Journal of Electrical Engineering, (2012) Vol.12, No.2, pp.142-149 *(Download)*
11) **Max Savio**, Vasantharaj, Sasikumar, "Implementation of Stand-Alone Hybrid System using SVPWM for Impedance Source Inverter", *Wulfenia* (2012), Vol.19, No.11 *(Download)*

BOOK CHAPTERS:

1) **F. Max Savio,** Himang Das, Ashwini, "Power Quality Enhancement of 2.5 MW Solar Integrated Domestic Grid System Using Machine Learning Algorithm", Lecture Notes in Networks and Systems, vol. 1452, Springer Nature Proceedings of ICE-TEAS 2025, pp. 447–455. (DOI: https://doi.org/10.1007/978-981-96-7292-9_37)
2) **F. Max Savio**, A K Chandru, Allampati Sriharshavardhan "A Novel Fast-Charging Approach and an Adaptive Control of Drives in Electric Vehicle Applications", Lecture Notes in Networks and Systems, vol. 1037, Springer Nature Proceedings of ICE-TEAS 2024, pp. 145-156 (DOI: https://doi.org/10.1007/978-981-97-3991-2_13)

CONFERENCE PROCEEDINGS:

IEEE/IET Proceedings:

1) **Max Savio,** D. Kalpana, C. Kamal, "Comparative Evaluation of Enhanced Metaheuristic MPPT Algorithms for Solar-Powered EV Charging Stations under Partial Shading Conditions", 2025 **11th International Conference on Electrical Energy Systems,** 2025, doi: 10.1109/ICEES67011.2025.11213395

2) Sumabindu, M.L., **Max Savio,** F., Sasikumar, M., "Design and modelling of a solar interfaced high voltage gain intelligent controller coupled inductor switched capacitor (CICS) dc/dc converter for submersible pumps in agricultural applications", IEEE Proceedings of ***2021 7th International Conference on Electrical Energy Systems (ICEES),*** 2021, pp. 217–224, doi: 10.1109/ICEES51510.2021.9383704
3) **Savio, F.M.,** Rajan, V.R., Arun Kumaran, B., Sekhar, C.S.A., "Performance analysis of an improved low harmonic indirect matrix converter for drive system in WECS", Proceedings of ***2014 IEEE National Conference on Emerging Trends In New & Renewable Energy Sources And Energy Management (NCET NRES EM)***, pp. 214–220, doi: 10.1109/NCETNRESEM.2014.7088770
4) Marian, A.R., **Savio, F.M.,** Anish, P.S., Sasikumar, M., "Performance characteristics of five level diode clamped multilevel inverter for induction motor drives", Proceedings of ***2012 International Conference on Emerging Trends in Electrical Engineering and Energy Management (ICETEEEM)***, pp. 350–354, doi: 10.1109/ICETEEEM.2012.6494506
5) **F. Max Savio,** M. Sasi Kumar, "An effective control technique for an Impedance Source Inverter based wind energy system", IEEE Proceedings of 2012 International Conference on Emerging Trends in Electrical Engineering and Energy Management (ICETEEEM), 2012, doi: 10.1109/ICETEEEM.2012.6494480
6) **Max Savio, F.,** Sasikumar, M., "Performance characteristics of three phase wind driven SEIG for drive applications", IET Chennai 3rd International on Sustainable Energy and Intelligent Systems (SEISCON 2012), 2012, pp. 230–235, doi: 10.1049/cp.2012.2219

Non-Scopus:

1) **F. Max Savio,** "An Improved Interleaved Phase Shift-Semi-Bridgeless Boost Converter fed Electric Charging Adapter", Proceedings of IEEE International Conference on Nanoelectronics, Nanomaterials, Nano bioscience & Nanotechnology.
2) **Max Savio,** "A Fast-Charging Electric Vehicle Adapter (EVA) using Type-I Zeta Converter for $LiFePO_4$", Proceedings of 7^{th} International Conference on Science, Technology, Engineering and Management.

PATENTS PUBLISHED/GRANTED:

1) An Electric Vehicle Battery Temperature Detection by using High ZT Value of Silicon Crystal (2020104212) – **Granted**
2) Dust cleaning system using line follower logic with Arduino (201641021514A) – **Published**
3) Elephant Repellence System using Parallel Communication of laser and LDR system (201841049506A) – **Published**
4) Spherical dome oscillating wave energy conversion device (202041019055A) – **Published**
5) A Self – Seated Matrix Auditorium Chair (202141059623A) – **Published**

COURSES CERTIFIED:

1) One month course on, "Quantum Computing" organized by the Centre for Development of Advance Computing, Hyderabad and Indian Institute of Technology, Roorkee with the support of Ministry of Electronics and Information Technology, Govt. of India in May 2025.
2) AICTE QIP PG Program on 3D Printing and Additive Manufacturing from Indian Institute of Information Technology Tiruchirappalli, Tiruchirappalli, July – Dec, 2024.
3) Certified Trainer for Samsung Hand Held Products servicing through SAMSUNG GURU SHIKSHA Program by Samsung India Pvt. Ltd. from 2019

SPECIAL SESSIONS DELIVERED:

1) Session speaker for the topic, "Modelling of Electric Vehicle Power Train using MATALB in the Faculty Development Program on Electric Vehicle: Technological Innovations and Market Trends on 02.12.2024.
2) Guest Speaker on the topic, "The Future of Electric Vehicles in India" for the IEI Workshop on, "An Overview of the Present and Future Outlook of Electric Vehicle in India Approaches and Perspect" on 29.11.2024
3) Guest Speaker for the Topic, "Design of Power Electronic Circuits using PLECS" organized by IEEE Power Electronics Society Madras Chapter on 25.04.2024
4) Guest Speaker for the Topic, "Smart Grid Technologies in Modern Electrical Power Systems", organized by the Department of Electrical and Electronics Engineering, Kings College of Engineering on 15.03.2024
5) Guest Speaker for the Topic, "Applications of MATLAB for Basic Power Electronic Circuits, organized by the Department of Electrical and Electronics Engineering, C. Abdul Hakeem College of Engineering & Technology
6) Delivered a Workshop on, "Matlab Modelling of Electric Vehicle" organized by Department of Electrical and Electronics Engineering, Saveetha Engineering College, Chennai on 14.11.2022.

EVENTS ORGANISED:

1) Seminar on Battery Technology and Product Development on 01.03.2025 – Experts from Fizixsolar Innovations, Chennai.
2) Guest Lecture on Role of Electrical Machines and Equipment in Electrical Power Systems on 31.08.2024 – Expert from TNEB, Coimbatore.
3) Online Guest Lecture on Role of Electrical Engineers in 5G Networks on 20.10.2023 – Expert from Nokia, Chennai.
4) Guest Lecture on Embedded Automotive Testing on 10.06.2023 – Expert from Harman Connected Services, Bengaluru.

5) Online Guest Lecture on Advancements in Marine Power Systems on 07.05.2022 – Expert from Indian Naval Academy (Ministry of Defence), Kerala.
6) Online Guest Lecture on Real time Applications of Protection and Switchgear and its Respective Job Opportunities on 30.04.2022 – Expert from Fuji Smbe Industries Pte Limited, Singapore.

SEMINARS/WORKSHOPS/COURSES ATTENDED:

Seminars and FDPs:

1) Faculty Development Program on "Outcome Based Education". Organized by Teaching and Learning Center (TLC), Indian Institute of Technology Madras, from 16.07.2025 to 18.07.2025.
2) IEEE FDP on, "Various Facets of Technology in Healthcare", organized by the Department of Medical Electronics and Biomedical Engineering, Saveetha Engineering College, Chennai from 24.02.2025 to 28.02.2025.
3) ATAL FDP on, "Electric Vehicle: Technological Innovations and Market Trends" organized by Department of Electrical and Electronics Engineering, Saveetha Engineering College from 02.12.2024 to 07.12.2024
4) Two-days Workshop on, "An Overview of the Present and Future Outlook of Electric Vehicle in India Approaches and Perspect", organized by Department of Electrical and Electronics Engineering, Saveetha Engineering College on 28.11.2024 & 29.11.2024
5) International One Week Online Faculty Development Program on, "Deep Learning Technique for Social Media Analytics" organized by Kongu Engineering College in Association with College of Computing and Information Sciences, University of Technology & Applied Science – IBRI, Oman from 15.04.2024 to 20.04.2024
6) Online Faculty Development Programme on "Aiming Towards 3D's in Electrical Engineering" from 11-03-2024 to 15-03-2024 organized by the Department of Electrical and Electronics Engineering, Mahatma Gandhi Institute of Technology, Gandipet, Hyderabad.
7) Five days online Faculty Development Program on, "Issues, Opportunities and Challenges in Smart Grid", organized by the Department of Electrical and Electronics Engineering, The Kavery Engineering College, from 20.02.2024 to 24.02.2024
8) Five days FDP on, "Emerging Trends and Research Opportunities in Electrical Engineering", organized by Dept. of Electrical Engineering, JIS College of Engineering from 10.04.2023 to 14.04.2024
9) Three days FDP on, "How Teachers Can Make a Difference", organized by Indian Institute of Technology Madras, Chennai on from 07.02.2023 to 09.02.2023
10) Two days FDP on, "Industry 4.0" organized by IEEE India Council from 02.04.2022 to 03.04.2022.
11) Five days FDP on, "Controller Design and Implementation for Renewable Power Generation Systems (Hydro, Wind, Solar System)", organized by the Department of Mechanical Engineering, NIT Meghalaya, India from 07.03.2022 to 11.03.2022

12) One day FDP on, "Recent Trends in E-Vehicle", Dept. of Electrical and Electronics Engineering, Krishnasamy College of Engineering and Technology, Cuddalore on 05.03.2022.
13) One Day National Seminar on, "Research Challenges in Micro grid", organized by VIT Chennai on 09.05.2015.
14) Two days Training on Computational Analysis of Electrical Machines", organized by VIT Chennai from 30.08.2014 to 31.08.2014.
15) One day workshop on, "Neural Networks and its Applications using MATLAB", organized by University College of Engineering, Panruti on 09.10.2013.
16) Two days workshop on, "Design of Solar Panel Application for Engineers", organized by TIFA-CORE in Automation Informatics, VIT from 29.03.2012 to 30.03.2013.
17) CSIR Sponsored National Seminar on, "Renewable Energy Micro-grids" organized by VIT-Chennai on 09.03.2013.
18) International Workshop on, "Recent Developments in Neural Networks", organized by Madras Institute of Technology, 03.10.2012 to 05.10.2012.
19) CSIR Sponsored National Seminar on "Application of Fuzzy Logic in Image Processing", organized by Kongu Engineering College, from 31.08.2012 to 01.09.2012.
20) Three Days National Level Workshop on, "Solar Photovoltaic Systems", organized by SSN College of Engineering from 03.05.2012 to 05.05.2012.
21) NPTEL Workshop organized by National Programme on Technical Enhancement Learning (IITM) on 21.04.2012.
22) National Level Seminar on, "Recent Trends in Control & Automation", organized by VIT Chennai on 10.03.2012.

Online Courses:

1) Semiconductor Fabrication by Purdue University & University of Texas, Austin and Intel Corporation.
2) Basics of Quantum Information by IBM.
3) Introduction to Quantum Computing from IBM SkillBuilds.
4) Electric Vehicle and Mobility by École des Ponts ParisTech and offered through Coursera.
5) Introduction to battery-management systems by University of Colorado Boulder and University of Colorado System and offered through Coursera.

PROFESSIONAL MEMBERSHIPS:

- Member, IEEE - 100043103
- Member, IEI – M1729289
- Member, ASR – R219093349
- Member, IAEng – 192293

CONTACT DETAILS:

- eMail: maxsaviof**@saveetha.ac.in**, maxsavio**@ieee.org**

- Mobile: +91 9840188187

OTHER DETAILS (If any):

- Developed a Gamified MCQ Test platform using JavaScript hosted through GitHub
- Mentor for the batch 2025-2029 and 2021-2025
- Alumni Coordinator
- Website Coordinator