



SUKREEN HANA HERMAN

PhD, Associate Professor

Universiti Teknologi MARA

Affiliations

Associate Professor,
Faculty of Electrical Engineering,
Universiti Teknologi MARA

Fellow & Head of Research
Microwave Research Institute, UiTM

Member, Integrated Sensors
Research Lab,
Faculty of Electrical Engineering,
UiTM

Education Background

JAPAN ADVANCED INSTITUTE OF
SCIENCE AND TECHNOLOGY (JAIST),
JAPAN

PhD (Materials Science), 2009

KANAZAWA UNIVERSITY, JAPAN

*MEng (Electronics and Computer
Science), 2003*

KANAZAWA UNIVERSITY, JAPAN

*BEng (Electrical, Electronics and
Information Engineering), 1999*

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[ORCID](#)

Professional Experience

UNIVERSITI TEKNOLOGI MARA (UiTM) | 2004 – Present

Administrative Appointment

- Head of Research, Microwave Research Institute (2025 – Present)
- Head, Community Network Center, ICAN UiTM (2021 – 2024)
- STEM Coordinator, Faculty of Electrical Engineering (2019 – 2021)
- Industry, Community and Alumni Network (ICAN) Coordinator, Faculty of Electrical Engineering (2015 – 2019)
- Head of Department, Center for Electronic Engineering Studies, Faculty of Electrical Engineering (2013 – 2015)

Academic Roles

- Resource Person for Semiconductor Manufacturing Technology Course
- Lecture Courses:
 - Semiconductor Manufacturing Technology
 - Semiconductor Devices
 - Materials Science
 - Industrial Topics
 - Electronic Engineering Design
- PhD supervisions (Main SV, by research) – 3 graduated, 5 on-going
- Master Degree supervisions (Main SV, by research) – 13 graduated
- Undergraduate Final Year Project supervisions – 2 / semester
- Postgraduate thesis examiner – 6 Master thesis, 2 PhD thesis

Panasonic R&D Center (M) Sdn Bhd | 2003 – 2004

Executive

Key responsibilities:

- Assist Panasonic Japan setting up Panasonic R&D Center in Malaysia
- Moderate business discussions between Panasonic Japan and Malaysia counterpart
- Translate Japanese documents to English / Malay language

Sharp – Roxy Sales & Service (M) Sdn Bhd | 1999 – 2000

System Engineer

Key responsibilities:

- Generate and analyze production data
- Look into network & IT systems
- ISO14001 working committee

Achievements & Awards

- Panasonic Scholarship for Master Degree (2000 – 2003) (5 recipients in Malaysia)
- Japanese Government Monbukagakusho (MEXT) Scholarship for Doctoral Degree (2006 – 2009) (25 recipients in Malaysia)
- UiTM Excellent Service Award – 2014, 2018, 2022
- Guest Lecturer for ITS Surabaya Global Learning Series (GLS) 2024

Research Profile

Research interests

- Sensor and sensing materials
- Memristor and memristive devices
- Semiconductor materials fabrications and characterizations
- Nanotechnology
- STEM Education

Equipment skills

- Fabrication facilities: sputtering, e-beam evaporation, thermal evaporation, spin coating
- Characterizations: SEM, XPS, Raman, FESEM, AFM, Semiconductor Analyzer

Research Grants (Principal Investigator)

International Grant | Total : RM 40,000.00

1. Project Title: Low-temperature fabrication of poly-Si TFT on glass substrate by poly-YSZ seed layer (*in Japanese*), Marubun Research Foundation (**Completed** 2009, RM40,000.00)

National Grants | Total : RM 1,136,500.00

1. Digging up the mycorrhizosphere: evaluating the influence of microbes and interfering ions on soil electrochemical characterizations (Fundamental Research Grant (FRGS), Ministry of Higher Education (MOHE), **Completed**, RM 192,000.00)
2. Electrochemical Activities of Ag/AgCl Carbon Nanostructures Hybrid Thin Films on Flexible ITO-Coated PET Substrates (FRGS, MOHE, **Completed** 2018, RM 99,000.00)
3. Sensing Behaviour of Memristive Metal Oxides, (Niche Research Grant (NRGS), MOHE, **Completed** 2018, RM 465,000.00)
4. Development of CMOS-process compatible ZnO nanorod synthesis by physical vapor deposition for high-sensitivity solid-state sensor application (E-Science Fund, Ministry of Science, Technology & Innovation (MOSTI), **Completed** 2015, RM 174,500.00)
5. Sensing Behaviour of Lateral-Structured Memristive Titania Thin Films (Exploratory Research Grant (ERGS), MOHE, **Completed** 2015, RM 101,000.00)
6. Synthesis of RF-Magnetron Sputtered ZnO Thin Films on Flexible Substrates (FRGS, MOHE, **Completed** 2013, RM 105,000.00)

UiTM Internal Grants (9 projects) | Total : RM 236,408.00

Research Output

Publications Profiles

- Web of Science, **H-index: 10**, ResearcherID: E-3543-2012
- SCOPUS, **H-index: 13**, SCOPUS identifier: 36011717300
- ORCID: <https://orcid.org/0000-0003-1588-557X>
- Google Scholar, **H-index: 15**, [Google Scholar Link](#)

Published Articles (Selected)

- Shaiful Bakhtiar Hashim, Nur Syahirah Kamarozaman, Norhidayatul Hikmee Mahzan, Nurbaya Zainal, Aimi Bazilah Rosli, **Sukreen Hana Herman**, Zurita Zulkifli, "Fabrication of integrated all-solid titanium dioxide and silver/silver chloride electrodes for facile pH electrochemical detection via extended-gate field effect transistor transducing method", *Journal of Materials Science: Materials in Electronics*, Vol 34, Article number: 1434 (**2023**) {SCOPUS/WoS-SCIE} – **IF: 8.0**
- Aimi Bazilah Rosli, Nur Hazirah Hamid, Muhammad AlHadi Zulkefle, Shafinaz Sobihana Shariffudin, Wan Fazlida Hanim Abdullah, **Sukreen Hana Herman**, "Post-deposition heat treatment effect on pH sensing behavior of chemical bath deposited nanostructured zinc oxide", *International Journal of Hydrogen Energy*, Vol 48(4), 1636-1648, DOI:10.1016/j.ijhydene.2022.10.036 (**2023**) {SCOPUS/WoS-SCIE} – **IF: 7.2**

Patents

- Malaysian Patent : MY – 144879 – A , "A Method of Fabrication of Lead Zirconate Titanate (PZT) Thin Film Microwave Capacitor", Zaiki Awang, Raudah Abu Bakar, Nor Fazlina Mohd Lazim, Suhana Sulaiman, **Sukreen Hana Herman**, Uzer Mohd Noor (2011)
- Japanese Patent : JP2010031352, "Method for Producing Substrate Provided With Silicon Layer Containing Crystal Grain of Silicon", Susumu Horita, **Sukreen Hana Herman** (2009)

Please refer to Web Of Science / SCOPUS author IDs for full list of publications

University Projects / Engagement

- Knowledge Transfer and Social Innovation and Research Engagement (KaSEH) UiTM Initiative
 - CE-SIR Grant for UiTM Community Project Leads to produce research output from community projects
 - *Manual Libatsama Komuniti* UiTM to guide UiTM Community Project Leads to conduct impactful community projects
 - Activities to create awareness to UiTM staff on how to conduct impactful community projects
 - Trainings for UiTM Community Projects Evaluators
 - Activities to acquire external fundings for UiTM to conduct impactful community projects
- UiTM – Badan Riset dan Inovasi Daerah Nusa Tenggara Barat (BRIDA NTB) collaborations
 - Knowledge transfer from UiTM expertise to BRIDA NTB on robotics, electronics and AI
 - Initiate collaborations with universities in NTB on research and community engagement
 - Co-organizing BRIDA NTB Youth Science Camp (YSC) 2023 & 2024 in Lombok Indonesia, UiTM as the Subject Matter Expert and Trainers

Community Projects / Engagement

International

- Institute of Electrical and Electronics Engineers (IEEE) STEM Champion 2022 – 2024
- IEEE STEM Grants Evaluator 2024 – 2025

National

STEM Education Based Projects Sponsorships (2015 – Present) | Total : RM 905,700.00

- Tiny Techies 2025
- Future Skills Programme – AI & Robotics 2024
- CelcomDigi Young Digital Innovators Programme 2023 (CDYDIP2023)
- Celcom Young Digital Innovators Program (CYDIP) 2019 – 2022
- Maxis Educational Young Influencer (Maxis EYI) 2023 – 2024
- Young Innovators Challenge (YIC) 2017 – 2020
- MDEC Computational Thinking & Computer Science (MDEC CTCS) 2017 – 2020
- MDEC ICT Career of Choice (ICT CoC) 2015

Executive Committee / Advisory Panels / Judges Appointments (Non-UiTM Appointments) – Selected

- Petrosains RBTX Challenge Advisor 2018, 2021 – Present
- IEEE EDS Malaysia Chapter Executive Committee (Educational Activities) 2023 – 2024
- Alumni Look East Policy Society (ALEPS) Executive Committee 2018 – 2022
- Malaysia Techlympics Judge 2023
- MDEC CTCS Certification Master Trainer 2017 – 2020
- MTDC Technology Conference & Exhibition Consultant 2019

Project Lead – Selected

- CelcomDigi Young Innovators Programme 2022, 2024
- Future Skills Programme – AI & Robotics 2025
- UiTM MDEC Digital Maker Hub (UiTM DMH) (2016 – 2024)
- UiTM – MTDC Maker Talent Competition 2019
- Smart Selangor Young Innovators Challenge 2018
- Innovate Malaysia Design Competition (IMDC) Central Region 2018
- UiTM Young Innovators Challenge 2017
- CREST Youth Industry Bootcamp 2016 – 2020