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Academic Qualifications

- Ph.D (Science)** • Osaka University, Japan (2009 – 2013)
Title: Precise Control and Initialization of Electron Spin Qubits
- M. Sc (Physics)** • Universiti Teknologi Malaysia, Malaysia. (2006 – 2008)
Title: Development and Testing Of A Low-Cost, Dual-Axis Clinometer Based On Micro-Electro-Mechanical System Sensors.
- B. Sc (Honours) (Industrial Physics)** • Universiti Teknologi Malaysia, Malaysia. (2001 – 2005)
Title: Development of a Low-Cost, High Voltage Probe and a Low-Cost, High Voltage, Low Current Source.

Attachments

- Visiting Researcher** • Osaka University, Japan (July 2014 – July 2015)
Visiting Researcher • Osaka University, Japan (12 – 31 March 2014)

Publication

1. **Y.S. Yap**, Y. Tabuchi, M. Negoro, A. Kagawa, M. Kitagawa, *A Ku band pulsed electron paramagnetic resonance spectrometer using an arbitrary waveform generator for quantum control experiments at millikelvin temperature*. [Review of Scientific Instruments 86, 063310 \(2015\)](#). IF: 1.614, Rank: Q2 @ 2014
2. **Y.S. Yap**, H. Yamamoto, Y. Tabuchi, M. Negoro, A. Kagawa, M. Kitagawa, *Strongly Driven Electron Spins using a K_u band Stripline Electron Paramagnetic Resonance Resonator*, [Journal of Magnetic Resonance 232 \(2013\) 62-67](#). IF: 2.510, Rank: Q2 @ 2014

Research Grant

Title: Pulsed EPR using Field Programmable Gate Array for Arbitrary Waveform Pulses

Reference Number: PY/2015/04636

Grantor: UTM

Total: RM 20,000.00

Position: Principle Investigator

Duration: 1 Sept 2015 to 30 Nov 2016 (*Ongoing*)

Title: Development of Embedded Mini Sensor for Monitoring and Assessing Reinforced Concrete Deterioration

Reference Number: 03-01-06-SF0214 (eScience) & 79152 (UTM Vote Number)

Grantor: eScienceFund by Ministry of Science Technology and Innovation & UTM

Total: RM 319,500 (RM255,000 + RM64,500)

Position: Research Member

Duration: 2008 – 2009 (*Completed*)

International Conferences

1. **Y.S. Yap**, Y. Tabuchi, S. Tanijima, M. Negoro, A. Kagawa, and M. Kitagawa • *Arbitrary Waveform Pulse ESR at Very Low Temperatures: Multiple Excitation using Phase-ramped Gaussian Pulses* • Joint Conference of APES2014-IES-SEST2014 • Nara, Japan • November 12-16, 2014 • Poster No.: P-100
2. **Y.S. Yap**, Y. Tabuchi, S. Tanijima, M. Negoro, A. Kagawa, and M. Kitagawa • *Arbitrary Waveform Pulsed ESR: Demonstration of Phase-ramped Gaussian Pulses* • 14th Asian Quantum Information Science Conference: Satellite Workshop • Osaka, Japan • August 25-56, 2014 • Poster No.: 29
3. **Y.S. Yap**, H. Yamamoto, Y. Tabuchi, M. Negoro, A. Kagawa, and M. Kitagawa • *Strongly Driven Spins using a K_u Band Stripline EPR Resonator* • The 11th US-Japan Joint Seminar on

Quantum Electronics and Laser Spectroscopy “Ultimate Quantum Systems of Light and Matter-Control and Applications” • Nara, Japan • April 4-12, 2013 • Poster No.: 1(12), A(6)

4. **Y.S. Yap**, H. Yamamoto, Y. Tabuchi, M. Negoro, A. Kagawa, and M. Kitagawa • *Efficient Stripline Micro-probe for K_u -band Electron Paramagnetic Resonance* • 2012 Thailand-Japan Microwave • Bangkok, Thailand • August 7-10, 2012 • Oral & Poster No.: WE3-3
5. **Y.S. Yap**, S. Inamoto, M. Kitagawa • *A high sensitivity K_u -band ESR Probe* • The 50th Annual Meeting of Society of Electron Spin Science and Technology & Joint International Workshop on Trends of Spin Science and Technology • Sendai, Japan • November 16-17, 2011 • Poster No.: 1P-18
6. **Y.S. Yap** and M. Kitagawa • *A sensitive K_u -band stripline probe* • 6th International School and Conference on Spintronics and Quantum Information Technology • Matsue, Japan • July 31 - August 5, 2011 • Poster No.: FP-52
7. **Y.S. Yap**, T. Kishida, I. Yamashina, H. Usui, M. Kitagawa • *Towards scalable ESR quantum computation utilizing sensitive K_u -Band probe and magnetic field gradient* • International Conference on Core Research and Engineering Science of Advanced Materials & Third International Conference on Nanospintronics Design and Realization • Osaka, Japan • May 30 - June 4, 2010 • Poster No.: PSI-19
8. **Y.S. Yap**, T. Kishida, I. Yamashina, H. Usui, M. Kitagawa • *Towards scalable ESR quantum computation utilizing sensitive K_u -Band probe and magnetic field gradient* • CREST 2010 International Symposium on Physics of Quantum Technology • Tokyo, Japan • April 6 – 9, 2010 • Poster No.: 8TH-23

Recognitions & Awards

Best Asia Pacific EPR/ESR (APES) 2014 Poster Award

Awarded at: Joint Conference of APES2014-IES-SEST2014.

Prize: ¥20,000 (approximately USD 200).

Invited Speaker

20 May 2014: Ibnu Sina Institute Seminar Series 53, UTM Malaysia.

[YEP Japan CST University Publication Award 2013](#)

Awarded by: AET, Inc. Computer Simulation Technology (CST) Japan.

Prize: One-year full license for CST Simulation software for UTM and Osaka University worth RM 247,000 each (university license price: c.a. RM 49,000 each).

Young Researcher Best Presentation Award

Awarded at: Thailand-Japan Microwave Conference 2012.

Administrative Positions

Deputy Director for Program Saintis Agenda Nobel UTM Summer School • 15-27 Aug 2015
Associate Editor of Malaysian Journal of Fundamental and Applied Sciences • 2015-ongoing
Committee Member of Physics Alumni, Faculty of Science, UTM • 2009
Journal Manager for Journal of Fundamental Sciences, Ibnu Sina Institute • 2008-2009
Committee Member of M.Sc (Nanotechnology) Course in UTM • 2008
Committee Member of Youth Science Camp Program, UTM • 2008
Committee Member of Regional Annual Fundamental Science Studies Conference • 2008

Professional Membership

Member of [International EPR \(ESR\) Society](#) • 2014 – 2016 • ID number: 3963

Technical Skills

Low Temperature System and Cryogenics

He³/He⁴ Dilution refrigerators - Familiar with Oxford Instrument Kelvin MX400 and Triton 400 with superconducting magnets.

Liquid Helium and Nitrogen - Experienced with cryogenics storage, handling and safety precautions.

Technical Skills

EPR (up to 140 GHz) - Familiar with microwave components, simulating resonators, spectrometer designs and carrying out EPR experiments.

Electronic Circuits - Able to create full working circuits and Printed Circuit Boards (PCB).

Programming - Experienced with C/C++ programming, Visual Basic 6.0, LaTeX, Micro-C.

High Voltage - Familiar dealing with high voltage (up to 36 kV) and HV equipments.

Languages

Languages	Written	Oral
English	Excellent	Excellent
Bahasa Melayu	Excellent	Excellent
Japanese	-	Intermediate

Referees

Prof. Madya. Dr. Wan Muhamad Saridan Wan Hassan

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Prof. Dr. Masahiro Kitagawa

Professor,
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