

YU-CHENG(JUSTIN) CHIOU

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EDUCATION

University of Tromsø , Tromsø, Norway <i>Graduate School, Department of Physics and Technology</i> Research Project: Direct growth graphene on the semiconductor substrate	Apr. 2019 - present
Masdar Institute , Abu Dhabi, UAE <i>Graduate School, Department of Micro System(withdrawal, family affair)</i>	Sep. 2016 - Apr. 2018
National Taiwan University , Taipei, Taiwan <i>Graduate School, Department of MSE(auditor)</i>	Sep. 2013 - Feb. 2015
University of Manchester , Manchester, UK <i>Master of Science in Advanced Engineering Materials</i>	Jun. 2010 - Dec. 2011

RESEARCH EXPERIENCE

Power data analytics <i>Project</i> Cooperated with tromsøkraft to study power shortage in an Arctic fish village via data science and data visualization	Apr. 2019 - Nov. 2019
Graphene study <i>Project</i> Graphene growth on semiconductor substrates for remote epitaxy focused on Ge, GaN, and GaAs.(MIT-MI Flagship research project)	May. 2018 - Present
2D-Materials Growth, AFM, First Principle <i>Project</i> The possibility of representing van der Waals force interaction via Hamaker constant	Sep. 2016 - Apr. 2018
Nano-Materials Growth <i>Project</i> Grew SiGe heterojunction 1-D nanowire and its applications	Sep. 2013 - Feb. 2015
Microwave Dielectric Ceramics <i>Master Thesis Project</i>	Jun. 2010 - Dec. 2011

WORK EXPERIENCE

Intel Microelectronic Asia Ltd. , Taipei, Taiwan <i>Senior Hardware Testing Engineer</i>	Feb. 2016 - Aug. 2016, Jan. 2013 - Aug. 2013
<ul style="list-style-type: none">· Developed new products and testing plans for new products.· Coordinated resources for the USA headquarter and vendors, including Broadcom, Realtek, and Qualcomm, to fulfill new products' technical and quality requirements and assist clients in phasing these new Intel products into their future product lines.	

- Engineered sample fabrications, including soldering, Jumper, etc.
- Implemented failure analysis, debugging, and product improvements of current products.
- Delivered NPI internal training to FAEs, AEs, and PMs as well as annual workshops to partners and clients.

Topco Scientific, Taipei, Taiwan
Executive Assistant to CEO

Oct. 2013 - Jan. 2016

- Surveyed novel materials for future use in transistors, solar cells, and LEDs and reported to CEO directly.
- Investigated the market trend of the future semiconductor industry.

National Chiao Tung University, Hsinchu, Taiwan
Research Assistant

Apr. 2012 - Aug. 2012

- Participated in wireless sensor networks design and application.
- Designed a wireless surveillance system with an information security mechanism.
- Investigated in super-capacitor recharge mechanism analysis-material selection.

Republic of China Air Force, Taipei, Taiwan
Sr. Aircraft Maintenance Aircraftman

Jul. 2008 - Jul. 2009

Implemented routine maintenance.

Guang Hua Digital Plaza, Taipei, Taiwan
Technical Support Engineer and Sales

Nov. 1998 - Apr. 2004

- Provided technical knowledge to customers (mainly 3C products and PC components).
- Customized computers for various customer needs.
- Issued reproduce and consult for clients.

SKILLS

Computer Skills	C/C++, Python, Scheme, Matlab
Simulation Skills	Sentaurus TCAD, Quantum Espresso, python-meep
Semiconductor Fabrication	CVD, ALD, Thermal and E-beam Evaporator
Analytical Instruments	SEM, Optic Microscopy, XRD, Raman Spectroscopy

PUBLICATION

Master Thesis

- Yu-Cheng Chiou, "Microwave Dielectric Ceramics," School of Materials, University of Manchester, 2011.

Journal Papers

- Sohail Shah, **Yu-Cheng Chiou**, Chia Yun Lai, Harry Apostoleris, Md.Mahfuzur Rahman, Hammad Younes, Ibraheem Almansouri, Amal Al Ghaferi, and Matteo Chiesa, "Impact of short duration, high-flow H₂ annealing on graphene synthesis and surface morphology with high spatial resolution assessment of coverage," *Carbon* 2017.
- Harry Apostoleris, **Yu-Cheng Chiou**, Matteo Chiesa, and Ibraheem Almansouri, "Spectral management for temperature control in photovoltaic systems," *Optics for Solar Energy*, 2017.
- **Yu-Cheng Chiou**, Tuza Adeyemi Olukan, Mariam Ali Almahri, Harry Apostoleris, Cheng- Hsiang Chiu, Chia-Yun Lai, Jin-You Lu, Sergio Santos, Ibraheem Almansouri, and Matteo Chiesa, "Direct Measurement of the Magnitude of the van der Waals Interaction of Single and Multilayer Graphene," *Langmuir*, 2018.

- Tuza Adeyemi Olukan, **Yu-Cheng Chiou**, Cheng-Hsiang Chiu, Chia-Yun Lai, Sergio Santos, Matteo Chiesa Chiesa, "Predicting the suitability of lateritic soil type for low cost sustainable housing with image recognition and machine learning techniques," *Journal of Building Engineering*, 2020
- Odin Foldvik Eikeland, Filippo Maria Bianchi, Harry Apostoleris, Morten Hansen, **Yu-Cheng Chiou**, Matteo Chiesa Chiesa, "Predicting Energy Demand in Semi-Remote Arctic Locations," *Energies*, 2021