**Assoc. Prof. Dr. Suejit Pechprasarn (Ph.D.) version 01/2023**


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| **Date of Birth** | 15 February 1985 |
| **Nationality** | Thai (Male) |
| **Work Address** | Associate Professor and Associate Dean Emeritus<br>College of Biomedical Engineering<br>Rangsit University, Pathum Thani, Thailand |
| **E-mail** | suejit.p@rsu.ac.th |
| **Tel** | +66 2997-2200-30 ext 1469 |


**UNIVERSITY EDUCATION**

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|---|---|
| May 2010 – Jul 2013 | Ramkhamhaeng University, Thailand<br>LLB in Thai Law |
| Sep 2007 – Dec 2012 | Institute of Biophysics, Imaging and Optical Science,<br>University of Nottingham, UK<br>PhD in Electrical and Electronic Engineering<br>Thesis title: "Analysis of Sensitivity and Resolution in Plasmonic Microscopes" |
| May 2003 – Jul 2007 | Thammasat University, Thailand<br>BEng in Electrical Engineering (English Programme) GPA 3.64/4.00 |
| Sep 2005 – Jul 2007 | University of Nottingham, UK<br>BEng in Electronic and Computer Engineering with 1st class Hons. (85%, 1/95) |

**WORK EXPERIENCE/EMPLOYMENT HISTORY**

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| Dec 2019 – Present | Associate Professor and Associate Dean Emeritus<br>College of Biomedical Engineering, Rangsit University, Pathum Thani, Thailand |
| Nov 2018 – Present | Assistant Professor (China high-level talent scheme)<br>Nanophotonics Research Centre, Shenzhen University, Shenzhen, Guangdong, China |
| Dec 2015 – Dec 2019 | Lecturer and Associate Dean for Research and Innovation<br>College of Biomedical Engineering Rangsit University, Pathum Thani, Thailand |
| Aug 2014 – Jul 2018 | Senior Research Fellow<br>Department of Electronic and Information Engineering (EIE), the Hong Kong Polytechnic University, Kowloon, Hong Kong SAR |
| Nov 2012 – Jul 2014 | Research Fellow (responsible for both research and teaching)<br>Institute of Biophysics, Imaging and Optical Sciences (IBIOS), Faculty of Engineering, University of Nottingham, UK |
| Feb 2012 – Oct 2012 | Research Assistant (responsible for both research and teaching)<br>Institute of Biophysics, Imaging and Optical Sciences (IBIOS), Faculty of Engineering, University of Nottingham, UK |

**TEACHING EXPERIENCE AND COURSES**

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| Shenzhen University | Microcontroller, Biosensors, Computer simulation of Optical systems |
| Rangsit University | Artificial Intelligence, Medical Physics, Expert systems, Computer simulation for medical devices, Computer Programming, Computer Network |
| Hong Kong Polytechnic University | Information systems, Optical communications, Biosensors |
| KMITL | Basic knowledge in artificial intelligence, Biosensors, Biosensor development |
| University of Nottingham | Object-Oriented Programming Laboratory |
| London Institute of Business and Technology (LIBT) | Fibre Optics, Project Management, Leadership, Risk management |

**RESEARCH EXPERIENCES AND KEY SKILLS**

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| Computing Skills | • Windows, Linux, Macintosh, Microsoft Office, AutoCAD, Adobe Illustrator, Photoshop, Assembly, C/C++/C#, Pascal, Basic, JAVA, MATLAB, Python, Labview, COMSOL, and ADS.<br>• Electromagnetic wave simulation techniques include finite element method (FEM), Finite different time-domain (FDTD), Transmission line method, Rigorous diffraction theory, and Wave momentum theory.<br>• Extensive experience in parallel computing calculations, graphic processing unit computing, and artificial intelligence. |
| Optics | • Theoretical, practical knowledge and experience in optics. |
| Photonics | • Nanoparticle synthesis, laser technology, MEM devices, Nanotechnology fabrication |
| Ultrasonic | • Transducers for high-frequency detection and generation |

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| Chemical & Biology | • Artificial cell membrane synthesis, protein binding, and binding kinetics |
| Electronics | • Integration of optical hardware with electronic hardware and writing the associated computer-controlled experiments. |
| Other Key Skills | • Problem-solving, data presentation, and time management.<br>• Work effectively both under my initiative and in a team environment.<br>• Fluent in English with IELTS band 7.0 and Thai and a basic command of Mandarin. |

**RESEARCH INTERESTS:**

1. Applications of parallel computing calculations, graphic processing unit computing, and artificial intelligence**.**
2. Optical microscopy and spectroscopy
3. 3D imaging and visualization
4. Image processing
5. Biomedical optics
6. Biosensors and Microelectromechanical (MEM) devices
7. Ultrasonic generation, detection, and microscopy
8. Infrared and mid-infrared spectroscopy and imaging
9. Nanophotonics, plasmonics, metamaterials;
10. Large-area nano-fabrication/nanomanufacturing;
11. Develop software to model electromagnetic effects using the Finite element method (FEM), Finite-Difference Time-Domain (FDTD), Transmission line modelling method (TLM), Rigorous coupled-wave analysis (RCWA), and Wave momentum theory.

**RESEARCH OUTPUTS as of 21/09/2023**

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| Total article citations: | 984 |
| H-index: | 16 |
| i10-index: | 21 |
| Research articles: | 102 |
| Books/Book chapters: | 7 |
| Source: | https://scholar.google.com/citations?hl=en&user=KvX_2_oAAAAJ&view_op=list_works |
| Patents in Thailand: | 19 |

**ACHIEVEMENTS AND AWARDS**

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| 2021 | Awarded Invention award from National Research Council of Thailand (1/500 applicants) "Deep learning for Automatic Pneumonia Screening. " |
| 2020 | Promoted to Associate Dean Emeritus.<br>Best paper award at Photoptics 2020 conference, Valletta, Malta, 29 Feb 2020 |
| 2019 | Promoted to Associate Professor in Physics at Rangsit University, Thailand<br>Outstanding Teaching Performance Award (3 consecutive years) from Rangsit University, Thailand |
| 2018 | Outstanding Teaching Performance Award 2018 from Rangsit University, Thailand |
| 2017 | Outstanding Teaching Performance Award 2017 from Rangsit University, Thailand<br>Awarded Innovation and Startup Award 2017 from Rangsit University, Thailand<br>Awarded PhD. Thesis award from National Research Council of Thailand (1/500 applicants)<br>Awarded Invention award from National Research Council of Thailand (1/500 applicants) |
| 2015 | Invited lecturer at Biomedical Engineering Programme, Rangsit University, Thailand |
| 2015 – 2017 | Postdoctoral Fellowship Grant from the Hong Kong Polytechnic University |
| 2014 | Published an article entitled 'Ultrastable embedded surface plasmon confocal interferometry' in Light: Science and Applications (Nature publication: Impact Factor: 14.098); it was on the top ten list of the papers that had the highest numbers of downloads in July-Aug 2014. |
| 2013 – 2014 | Excellent Performance Staff at the University of Nottingham for 2013/2014 |
| 2012 – 2013 | Excellent Performance Staff at the University of Nottingham for 2012/2013 |
| 2013 | Best Oral Presentation Award. The 2nd Regional Symposium on Biosensors, Biodiagnostics & Biochips (ASEAN+2013). Chiang Rai, Thailand |
| 2010 | Ramkhamhaeng University; Tuition fee scholarship for high academic performance "5G scholarship." |

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| 2007 | University of Nottingham Full International Scholarship (to cover fees and living expenses whilst studying for a PhD in the Faculty of Engineering). |
| 2007 | I completed my degree in Engineering with 1st Class Honours in Electronic and Computer Engineering and achieved the highest score of the graduating class at the University of Nottingham, UK, and Thammasat University, Thailand. |
| 2007 | I was awarded the Peter Johns Prize Award (2006/2007) for Outstanding Student and associated scholarship |
| 2006 | Joint scholarship from Thammasat University, Thailand and the University of Nottingham, UK |
| 2003-2005 | High Academic Performance Award and associated scholarship from Thammasat University |
| 2003-2005 | English Improvement Award and associated scholarship from Thammasat University, Thailand |
| 2002 | I was awarded a tuition fee scholarship from the Promotion of Academic Olympiad and Development of Science Education: Computer Science; this scholarship is a highly competitive scholarship for high school students in Thailand. |

**PROFESSIONAL ASSOCIATION**

- I am a peer reviewer for the Optical Society of America (OSA), Springer and Nature Publishing Group, including high-impact factor publications, such as Optics Express, Optics Letters, Biomedical Optics Express, Plasmonics and Scientific Reports. Also, a research proposal reviewer for the National Science Centre, Poland. Furthermore, I am on the committee of The Association of Researchers of Thailand.
- I am also a guest lecturer, inviting professor, and inviting scholar for several universities, including Thammasat University (Thailand), King Mongkut's Institute of Technology Ladkrabang (Thailand), Kasetsart University (Thailand), Naresuan University (Thailand), University of Nottingham (UK), University of Leeds (UK) and Bei Hang University (China).
- I have provided engineering consultation for public and private companies at national and international levels.