

## SCIENTIFIC PROGRAM

Day 1 : Thursday, 24 August 2023		
8:30 a.m.–9:00 a.m.	Conference Registration at <a href="http://www.ri2c-kmutnb.com">www.ri2c-kmutnb.com</a>	
9:00 a.m.–9:05 a.m.	General Introduction of RI <sup>2</sup> C 2023	
9:05 a.m.–9:15 a.m.	Opening Session - Introduction of King Mongkut's University of Technology North Bangkok (KMUTNB) - Welcome Speech from Conference Chair: Professor Somrerk Chandra-Ambhon Vice President for Research and Technology Development of KMUTNB - Opening remark from President of KMUTNB: Professor Suchart Siengchin	
9:15 a.m.–9:30 a.m.	Greeting and Welcoming by Master of Ceremony (MC)	
9:30 a.m.–10:40 a.m.	<b>Keynote Speaker I : Assoc.Prof.Dr. Eugene Kowch</b> (University of Calgary, Canada) Topic : <i>Leading Artificial Intelligence-Enhanced Teaching and Learning in Universities: A New Imperative for Transdisciplinary Innovation in Thailand</i>	
10:40 a.m.–11:50 a.m.	<b>Keynote Speaker II : Dr. Siwarutt Boonyarattanakalin</b> (SMS Corporation Co., Ltd., Thailand) Topic : <i>SMS's innovation for better life</i>	
11:50 a.m.–12:00 p.m.	General Introduction : Guidelines for Presenters	
12:00 p.m.–1:00 p.m.	<b>Break / Sponsor Lunch Presentation</b>	
1:00 p.m.–1:10 p.m.	Welcoming by Master of Ceremony (MC)	
1:10 p.m.–2:20 p.m.	<b>Keynote Speaker III : Prof.Dr. Piya Kovintavewat</b> (Nakhon Pathom Rajabhat University, Thailand) Topic : <i>Signal Detection and Decoding Evolution for High-Density Magnetic Recording Systems</i>	
2:20 p.m.–3:30 p.m.	<b>Keynote Speaker IV : Prof.Dr. Gui Yun Tian</b> (Newcastle University, UK) Topic : <i>Novel Electromagnetic Nondestructive Testing and Evaluation (NDT&amp;E) for Railway</i>	
3:30 p.m.–3:45 p.m.	General Introduction : Guidelines for Presenters	
3:45 p.m.–6:00 p.m.	<b>Parallel sessions (2 rooms)</b>	
	<b>Room I</b> Special session : Innovative Electricals and Electronics (iEE) IEEE-Education & Technology Chapter	<b>Room II</b> Special session : Innovative Electricals and Electronics (iEE) Electromagnetics & Antenna Applications
	1570913773	1570919866
	1570909312	1570925279
	1570928163	1570925283
	1570913944	1570928196
	1570919884	1570938848
	1570919881	1570938851
	1570919736	1570920754
	1570909750	1570945861
	1570919992	

**\*\* Oral Presentation 15 min (12 min presentation + 3 min Q&A) \*\***

## Room I

### Special session : Innovative Electricals and Electronics (iEE)

#### IEEE- Education & Technology Chapter

Chairman : Sasithorn Chookaew

Time	Paper ID	Title	Authors
3:45-4:00 p.m.	1570913773	Artificial Intelligence Avatars for Conversational Agents	Phatthachada Khampuong, Prachyanun Nilsook, Panita Wannapiroon
4:00-4:15 p.m.	1570909312	A Conceptual Framework of a High-performance Digital Education Organization	Surasak Srisawat, Panita Wannapiroon, Prachyanun Nilsook
4:15-4:30 p.m.	1570928163	IoT, 6G and Digital Twin For Smart Campus	Tanapeak Pexyea, Kobkiat Saraubon, Prachyanun Nilsook
4:30-4:45 p.m.	1570913944	Artificial Intelligence Engineering for Predictive Analytics	Sasitorn Issaro, Prachyanun Nilsook, Panita Wannapiroon
4:45-5:00 p.m.	1570919884	Multi Criteria Decision Making for Ranking Digital Vocational Education	Siriporn Chairungruang, Pallop Piriyasurawong, Prachyanun Nilsook
5:00-5:15 p.m.	1570919881	Digital Culture Leadership for Smart Schools	Phiraya Chompoowong, Prachyanun Nilsook, Pallop Piriyasurawong
5:15-5:30 p.m.	1570919736	System Architecture Analysis: Artificial Intelligence of Things	Sant Phanichsiti, Pallop Piriyasurawong, Prachyanun Nilsook
5:30-5:45 p.m.	1570909750	Hyflex Learning with Snoopathon for Metaverse	Jaruwan Karapakdee, Panita Wannapiroon, Prachyanun Nilsook
5:45-6:00 p.m.	1570919992	Intelligent Metaverse Museum Based on the Universal Design to Enhance Immersive Learning Experiences	Sittisak Chomjan, Panita Wannapiroon, Prachyanun Nilsook

## Room II

### Special session : Innovative Electricals and Electronics (iEE)

#### Electromagnetics & Antenna Applications

Chairman : Nonchanutt Chudpooti

Time	Paper ID	Title	Authors
3:45-4:00 p.m.	1570919866	Through-Wall Human Sensing Using mmWave FMCW Radar	Kritthee Phaisiri, Akkarat Boonpoonja, Chainarong Kittiyapunya, Kamol Kaemarungsi, Nonchanutt Chudpooti
4:00-4:15 p.m.	1570925279	The Ultra-Wideband Antipodal Vivaldi Antenna with Diamond Shaped Parasitic Patch	Wanwisa Thaiwirot, Chanikarn Wanna, Nonchanutt Chudpooti
4:15-4:30 p.m.	1570925283	Analysis of Flexible Dual-Band Microstrip Patch Antenna for Wearable Applications	Wanwisa Thaiwirot, Prayoot Akkaraekthalin
4:30-4:45 p.m.	1570928196	Flexible Chipless RFID Sensor for permittivity sensing of Cylindrical Impedance Surface	Rattapong Suwalak, Chuwong Phongcharoenpanich, Danai Torrungrueng, Titipong Lertwiriyaprapa
4:45-5:00 p.m.	1570938848	Illumination and Bandwidth Control Circuit for LED Optical Wireless Transmitter Driver Integrated with Passive Second-order Equaliser for Pipe Robot Application	Kamol Boonlom, Rungrat Viratikul, Ian Robertson, Tim Amsdon, Nonchanutt Chudpooti, Nutapong Somjit
5:00-5:15 p.m.	1570938851	Investigation of Electromagnetic Mode Transition in 220-325-GHz Horn-type Connector	Rungrat Viratikul, Binbin Hong, Panuwat Janpugdee, Nonchanutt Chudpooti, Ian Robertson, Nutapong Somjit
5:15-5:30 p.m.	1570920754	Prospects for Artificial Intelligence and Learning Analytics in Engineering Higher Education	Zhe Wang; Qian Ma; Nutapong Somjit; Ian Robertson
5:30-5:45 p.m.	1570945861	Non-Destructive pH Sensor using 3D-printed honeycomb resonator for Liquid-Mixture Characterization	Patchadaporn Sangpet, Sukanya Chudpooti, Nutapong Somjit, Ian D. Robertson, Prayoot Akkaraekthalin, Nonchanutt Chudpooti