CURRICULUM VITAE

Kin-Choong Yow, *PhD, PEng, SMIEEE, MACM*
邱建聡, 邱建聰, 구건충, きゅうけんそう
He / his / him / 他 / 他 / ユ / 彼（かれ）

Professor
Faculty of Engineering and Applied Science
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Key Assets

- Accomplished teacher and researcher and well-liked by students and peers
- Proven leadership in project team management
- Strong knowledge of tertiary education systems in Asian countries
- Comprehensive knowledge of Singapore's and Asia's educational policies and processes
- Expertise in teaching, mentoring student projects and solving student's problems.

Professional Experience

Professor, July 2022 – Present,
Associate Professor, September 2018 – June 2022,
University of Regina, Saskatchewan, Canada

- Conduct Lectures for Undergraduate Courses
- Supervise Student Capstone Projects and Internships
- Conduct Research and Development Activities
- Compete for External Research Funding
- Supervise Graduate students

Associate Professor, March 2013 – August 2018,
Gwangju Institute of Science and Technology (GIST), Republic of Korea

- Conduct Lectures and Recitations for Undergraduate Courses
- Supervise Student Projects and Internships
- Conduct Research and Development Activities
- Compete for External Research Funding

Professor, January 2012 – March 2013,
Shenzhen Institutes of Advanced Technologies (SIAT), People's Republic of China
- Build up Research Team and Core Expertise in Cloud Security
- Lead Teams in Applying for Research and Industrial Grants
- Conduct Research and Development Activities in Cloud Security
- Build System Prototypes and Running System Trials with Industry
- Supervise Graduate students

Associate Professor, May 2005 – December 2011,
Assistant Professor, July 1999 – May 2005,
Lecturer, May 1998 – July 1999,
Nanyang Technological University (NTU), Singapore
- Conduct Lectures and Tutorials for Undergraduate and Postgraduate Courses
- Supervise Final Year Projects and Industrial Attachments
- Supervise Graduate students
- Conduct Research and Development Activities
- Compete for External Research Funding
- Represent staff on various administrative committees (e.g. Canteen Advisory Committee, University Scholars' Award Committee, etc.)
- Organize events for the school and university (e.g. NTU 50th Anniversary Celebration, Staff Annual Dinner and Dance, NTU Open House, etc.)

Management Experience

Chair, IEEE South Saskatchewan Section, January 2022 – December 2023,
Secretary, IEEE South Saskatchewan Section, January 2020 – December 2021,
- Ensure the smooth running of the Section
- Organize activities to cater to member's professional needs
- Resolve conflicts between Executive Committee members
- Provide regular reporting to IEEE Region 7

Senior Hall Fellow, NTU Hall of Residence 6, August 2010 – December 2011
Hall Fellow, NTU Hall of Residence 6, January 2008 – July 2010
- Responsible for Residential Learning in the Hall of Residence
- Guide Student Leaders in conducting student activities
- Conduct Student Counselling Sessions

Chairman, Inter Tertiary Institution Staff – National University of Singapore Society (ITIS-NUSS) Games Council, July 2006 – June 2008
- Chairman of the Council formed by representatives of 11 tertiary institutions in Singapore
- Plan and Execute 24 Games for staff of the 11 institutions between Apr to Oct 2007

Associate Dean of Admissions, Nanyang Technological University (NTU), December 2006 – July 2008
- Looks after undergraduate admissions for both local and international students
- Involves in recruitment of students through school visits and educational fairs
- Manages the students' application, shortlisting and selection for admission
- Chair interview panels for Scholarships award and selection
- Administer Financial Aid schemes such as Tuition Grants, Bursaries, Tuition Fee Loans

Sub Dean, School of Computer Engineering (SCE), NTU, July 2000 – May 2005
Sub Dean, School of Applied Science (SAS), NTU, June 1999 – July 2000
- Looks after Undergraduate Matters and Alumni Matters
- Provides Academic Counselling to students
- Handles student appeals and academic requests
- Member of the School's Board of Examiners
- Advises the SCE student club in running student activities
- Represents the School in the University's Career Advisory Committee
- Organizes Alumni homecoming activities
- Advises the SCE Alumni Association on events and activities
- Coordinates contributions and donations to the NTU Endowment Fund

Academic Qualifications

Post Graduate Diploma in Teaching in Higher Education (PGDipTHE)
- August 2000 – July 2001
- Graduation Date: July 4th 2001
- Nanyang Technological University, Singapore

Doctor of Philosophy (Ph.D.)
- October 1994 – May 1998
- Graduation Date: May 9th 1998
- University of Cambridge, England, UK

Bachelor of Engineering (Elect)
- July 1989 – June 1993
- 1st Class Honours
- Winner of the Professional Engineer's Board Gold Medal
- Graduation Date: June 16th 1993
- National University of Singapore, Singapore

Membership in Professional Societies
- Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS). Professional Engineer. Approved June 14th, 2021.
- Institute of Electrical and Electronic Engineers (IEEE). Member. Approved Jan 20th, 2020. Elevated to Senior Member, November 30th 2021.
- Association of Computing Machinery (ACM). Member. Approved Nov 28, 2020.

Awards and Honours

Awards
- Led the IEEE South Saskatchewan Section to win the IEEE MGA Outstanding Small Section Award in August 2023 (worldwide award out of 433 sections)
- Led the IEEE South Saskatchewan Section to win the IEEE Canada Exemplary Small Section Award in March 2023 (national award out of 21 sections)
- Winner of the NTU Excellence in Teaching Award 2005
- Winner of the SCE Most Popular SCE Year 1 Lecturer 2004 – 2007 (4 consecutive years) and again in 2010
- Winner of the Hewlett Packard Philanthropy Grant for Applying Mobile Technologies in a Teaching Environment 2003
- Winner of the ASEAN Technology Network Program on Multi-Robot Cooperation System Development 2003
- Winner of the National Servicemen of the Year (Letter of Commendation) in 2000 and again in 2005

Honours
- Appointed Fellow of the Renaissance Engineering Program 2011 – 2014.
- I am selected for inclusion in the International Bibliographical Centre (IBC)'s "Top 100 Educators" in 2010.
- I am selected for inclusion in the "2000 Outstanding Intellectuals of the 21st Century" 2010 and 2011 edition.
- I am given a mention in the "Marquis Who's Who in Science and Engineering" 2011 edition.
- I am given a mention in the "Marquis Who's Who in the World" 2010 and 2011 edition.
- I was given a mention in the Institution of Engineers, Singapore (IES) "Who's who in Engineering Singapore 2006".

Academic Referees

Prof. Ian McLoughlin
Professor and Cluster Director, Infocomm Technology
Singapore Institute of Technology
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Email: Ian.McLoughlin@singaporetech.edu.sg
URL: https://www.singaporetech.edu.sg/directory/faculty/ian-mcloughlin
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Prof. MoonGu Jeon
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Prof. Cyril Leung
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The University of British Columbia
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Vancouver, BC, Canada V6T 1Z4
Email : cleung@ece.ubc.ca
URL: https://ece.ubc.ca/cyril-leung/
Tel: +1-604-822-2866

Research Achievements

Awards

- **Wiley's Top Downloaded Article Award**. My paper "Classification of insulators using neural network based on computer vision", was one of Wiley's top downloaded articles during its first 12 months of publication (1st January 2021 – 31st December 2021).
- **Tan Chin Tuan Exchange Fellowship Award.** I was awarded the Tan Chin Tuan Exchange Fellowship award for FY2011 to visit the University of British Columbia, Vancouver Canada for the period 6th June 2011 to 15th July 2011.
- **JSPS-NSEP Award.** I was awarded the Japan Society for the Promotion of Science (JSPS) New Scientist Exchange Program (NSEP) for FY2009 to undertake a long term visit to the Keio University Graduate School of Media Design for the period 1st June 2009 to 2nd July 2009. I am the first person from NTU who is awarded a long term visit to Japan under the JSPS-NSEP program.
- **Top 3 Best Paper Award at IPCCC2007.** The paper "A QoS Framework to Support Integrated Services in Multihop Wireless Networks with Infrastructure Support", was selected as one of the top 3 papers in the 26th IEEE International Performance Computing and Communications Conference (IPCCC'07) held from 11th to 13th June 2007 in New Orleans, Louisana.
- **Winner of the HP Mobility Grant 2003.** This award for an amount of US$140,000 is given to project proposals for applying mobile technologies in a

Learning Environment. Only 7 awards were given to the 21 Asia Pacific Countries who were invited. I am the only one from Singapore to win it.

- **ASEAN Technology Program on Multi Robot Cooperation Development**. This award is given to members of the ASEAN countries to participate in a 5 day training program on Multi Robot Cooperation Development. Only 2 from each of the 10 ASEAN countries were given the award.

Citations
- I have the following citation counts and H-indices:

	Citation Count	H-Index
Google Scholar	2557	27
Scopus	1262	19
Web of Science	2313	17

Recognitions
- I am selected for inclusion in the International Bibliographical Centre (IBC)'s "Top 100 Educators" in 2010.
- I am selected for inclusion in the "2000 Outstanding Intellectuals of the 21st Century" 2010 and 2011 edition.
- I am given a mention in the "Marquis Who's Who in the World" 2010 and 2011 edition.
- I am given a mention in the "Marquis Who's Who in Science and Engineering" 2011 edition.
- I am given a mention in the "Who's Who Among Executives and Professionals" 2011 edition.
- I was given a mention in the Institution of Engineers, Singapore (IES) "Who's who in Engineering Singapore 2006".

Invited Presentations at Scientific Meetings/Workshops
- **International Conference on Computer, Software Engineering and Applications (CSEA 2023).** I was invited to give a talk as an Invited Speaker on "Advances in Generative AI (GenAI): The Technology, the Applications and the Threats" at the 5th International Conference on Computer, Software Engineering and Applications (CSEA 2023) held in the University of Shanghai for Science and Technology, Shanghai, China, October 27-29, 2023.
- **Canadian Conference on Electrical and Computer Engineering (CCECE 2023).** I was invited to give a tutorial on "Generative AI (GenAI) and its impact on Post-Secondary Education" at the 36th IEEE Canadian Conference on Electrical and Computer Engineering (CCECE 2023) held in Regina, Saskatchewan, Canada, September 24-27, 2023.
- **International Conference on Machine Learning and Natural Language Processing (MLNLP 2022)**. I was invited to give a talk as a Keynote Speaker on "Integrating Commonsense Reasoning to Emotion Detection in Dialogues" at the 5th International Conference on Machine Learning and Natural Language Processing (MLNLP 2022) held in Sanya, China, December 23-25, 2022.
- **International Conference on Computer, Software Engineering and Applications (CSEA 2022).** I was invited to give a talk as an Invited Speaker on "Network Intrusion Detection via Flow-to-Image Conversion and Deep Neural

Network Classification" at the 4th International Conference on Computer, Software Engineering and Applications (CSEA 2022) held in the University of Shanghai for Science and Technology, Shanghai, China, December 16-18, 2022.

- **DeepView Workshop at the International Conference on Advanced Video and Signal-based Surveillance (DeepView @ AVSS 2022)**. I am invited to give a talk as an Invited Speaker on "Visual Surveillance via Abnormal Event Detection and Localization" at the DeepView: Global Multi-Target Visual Surveillance Based on Real-Time Large-Scale Analysis workshop, held in conjunction with the 18th IEEE International Conference on Advanced Video and Signal-Based Surveillance (DeepView @ AVSS 2022), Madrid, Spain, November 29 – December 2, 2022.

- **Seminar at the CyberSpace Institute of Advanced Technology, Guangzhou University**. I was invited to give a talk on "The application of computer vision techniques in cybersecurity" to the faculty and students of the CyberSpace Institute of Advanced Technology in Guangzhou University, China, on November 18th, 2022.

- **International Conference on Intelligent Robotics and Control Engineering (IRCE 2022)**. I was invited to give a talk as an Invited Speaker on "Real World Violence Detection using Multiple Deep Learning Architectures" at the 5th International Conference on Intelligent Robotics and Control Engineering (IRCE 2022) held in Tianjin, China, September 23-25, 2022.

- **International Conference on Algorithms, Computing and Artificial Intelligence (ACAI 2021):** I was invited to give a talk as an invited speaker on "An Interpretable approach for Chest X-ray Inspection" for the 4th International Conference on Algorithms, Computing and Artificial Intelligence (ACAI 2021) held in Sanya, China, December 22-24, 2021.

- **International Conference on Automation Technology and Mechanical Engineering (ICATME 2021):** I was invited to give a keynote address on "General Moving Object Localization from a Single Flying Camera" at the 2021 International Conference on Automation Technology and Mechanical Engineering (ICATME 2021) held via Zoom, Jan 22-24, 2021.

- **Applied Research Seminar at Singapore Institute of Technology.** I was invited to give a talk on "Autonomous Vehicle Guidance using Independently Moving Cameras" to the faculty and students of the Singapore Institute of Technology, Singapore, on December 13th, 2019.

- **Educational Seminar at Singapore Institute of Technology.** I was invited to give a talk on "SPICE – Spaced Learning in Computer Education" to the faculty and students of the Singapore Institute of Technology, Singapore, on December 9th, 2019.

- **Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2019):** I was invited to give a keynote address on "Autonomous Vehicle Guidance using Independently Moving Cameras" at the 2019 4th Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2019) held in Nagoya, Japan, July 13-15, 2019.

- **Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2018):** I was invited to give a keynote address on "Binocular Cognitive Autonomous Vehicles" at the 2018 3rd Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2018) held in Singapore, July 21-23, 2018.

- **International Workshop on Pattern Recognition (IWPR2018)**: I was invited to be a plenary speaker for the 3rd International Workshop on Pattern Recognition (IWPR 2018) held in Jinan, Shandong, China, May 19-21, 2018.

- **International Conference on Signal Processing and Information Communications (ICSPIC2018)**: I was invited to give the keynote address "Deep Convolutional Generative Adversarial Networks for Automatic Image Coloring" at the 2018 International Conference on Signal Processing and Information Communication (ICSPIC 2018) held in Seoul, Korea, January 21-23, 2018.
- **International Conference on Communication and Electronics Information (ICCEI2017)**: I was invited to give the keynote address "Intelligent Environments and their role in the Fourth Industrial Revolution" at the 5th International Conference on Communication and Electronics Information (ICCEI 2017) held in Singapore, September 1-3, 2017.
- **International Conference on Advances in Information Technology (ICAIT2017)**: I was invited to give the keynote address "Intelligence in the Environment – Technologies that the Fourth Industrial Revolution has forgotten about" at the 2017 International Conference on Advances in Information Technology (ICAIT 2017) held in Kathmandu, Nepal, March 3-5, 2017.
- **European Conference on Ambient Intelligence (AmI 2009)**: I was invited to give a talk on "Ambient Intelligence Activities in Singapore and the Intelligent Nation 2015 (iN2015) Masterplan" at the 3rd European Conference on Ambient Intelligence held in Salzburg, Austria, 18-21 Nov 2009.
- **International Conference on Advanced Infocomm Technologies (ICAIT 2008)**: I was invited to give a talk on "Multihop Wireless Networks with Infrastructure Support (MWNIs): Extending the coverage of WLANs with multihop networks" at the International Conference on Advanced Infocomm Technology, Shenzhen, China, 28-31 July 2008.
- **Third Interlink-Workshop on Ambient Computing and Communication Environments:** I was invited to participate and present on the topic of "The conflict of data provision vs. control and human attention involving the resulting issues of privacy" in the EU-funded workshop which is a coordinated action on "International Cooperation Activities in Future And Emerging ICTs" held in Keio University, Japan from 18-20 June 2008. Participation is by invitation only and limited to 20 people worldwide. I was re-invited back for the Consolidation Workshop held in Cannes, France from 12-14 November 2008.
- **Microsoft Windows Server 2003 Launch**: I was invited to give a talk on "Designing Microsoft .NET Applications for Deployment and Manageability" in the Microsoft Windows Server 2003 Launch on 14 May 2003.
- **CNET Networks event**: I was invited to give a talk on "Enterprise Application Development in NTU on the Motorola iDEN network" in the event "3i – Instant Communications, Integrated Solutions, Interoperability" organized by CNET Networks on 24 Sep 2002

External Research Funding
- I have secured the following research funding:

No	Project	Funding Agency	Role	Amount	Duration
1.	Predictive and auto-learning algorithm for	Mitacs Accelerate (Nokia Canada	PI	CAD 110,000	Nov 2022 – Oct 2024

	fault Introduction collateral to software modification	Inc.)			
2.	eXplainable (XAI) and Accountable AI for Blockchain/NFT Event Ticketing marketplace	Mitacs Accelerate (CYA Inc.)	PI	CAD 120,000	Oct 2022 – Sep 2024
3.	Designing MVP for Atare Foods	Mitacs BSI (Atare Naija Foodie Corporation)	PI	CAD 10,000	May 2022 – Aug 2022
4.	AI-based virtual assistant and fraud detection for the insurance industry	Mitacs Accelerate (BlueCouch AI Inc)	PI	CAD 30,000	Apr 2022 – Mar 2023
5.	A Multiple-Input-Multiple-Architectural (MIMA) Approach to Improving Learning and Decision Making in Robust Artificial Intelligent Systems (RAIS) – Extension	Natural Science and Engineering Research Council (NSERC)	PI	CAD 15,000	Apr 2022 – Mar 2023
6.	Reinforcement Learning for anomaly detection in real-time camera feed	Mitacs Accelerate (Intelense)	PI	CAD 30,000	Jan 2022 – Aug 2022
7.	A Realistic Machine Learning-based Model for Failure Prediction and Propagation in Smart Grid Networks	Mitacs Accelerate (Ericsson)	Co-PI	CAD 60,000	May 2021 – Apr 2022
8.	Anomaly detection using AI/ML for Network	Mitacs Accelerate (Ericsson)	PI	CAD 30,000	May 2021 – Apr 2022

	Correction and Increased Storage				
9.	Abnormal Event Detection in Surveillance Camera Feeds	Mitacs Research Training Award	PI	CAD 3,000	May 2021 – Jul 2021
10.	The Application Of Artificial Intelligence In Agricultural Land Flooding Prediction In Southern Saskatchewan	Saskatchewan Ministry of Agriculture (Agricultural Development Fund (ADF))	Collaborator	CAD 149,000	Jan 2021 – Dec 2024
11.	Develop a web based geospatial artificial intelligence framework to track, visualize, analyze, model, and predict infectious disease spread in real-time	Mitacs Accelerate (SuperGeoAI)	Co-PI	CAD 150,000	Aug 2020 – Jul 2021
12.	AI-Blockchain integration to ensure explainability, accountability, traceability and reproducibility (EATR) in mission critical systems	Mitacs Accelerate (Ericsson)	PI	CAD 60,000	May 2020 – April 2022
13.	A Multiple-Input-Multiple-Architectural (MIMA) Approach to Improving Learning and Decision Making in Robust Artificial Intelligent Systems (RAIS)	Natural Science and Engineering Research Council (NSERC)	PI	CAD 30,000	Apr 2020 – Mar 2022
14.	Technologies for the Next Generation 4-D	National Research Foundation,	PI	KRW 250 million	1 Jun 2017 – 31 May 2020

	K-Pop Musical Experience Delivery	Korea.			
15.	Blended Learning for Computer Algorithms	GIST Research Institute, Korea	PI	KRW 12 million	1 May 2017 – 31 Dec 2017
16.	SPICE - Spaced Learning in Computer Education	GIST Research Institute, Korea	PI	KRW 20 million	1 Jul 2016 – 31 Dec 2016
17.	Development of global multi-target tracking and event prediction techniques based on real-time large-scale video analysis	Institute for Information & Communications Technology Promotion (IITP), Korea	Collaborator	KRW 20 billion	1 Mar 2013 – 28 Feb 2023
18.	Security Implementation in Cloud computing systems	Development and Reform Commission of China	Co-PI	CNY 25 million	1 Oct 2012 – 30 Sep 2015
19.	Testing and Evaluation Platform for Cloud Computing	Development and Reform Commission of China	Co-PI	CNY 30 million	1 Oct 2011 – 30 Sep 2014
20.	Defence against DDoS Attacks using Self Organizing Fast Flux Swarm Networks	DRTech, Singapore	PI	SGD 467,052	1 Apr 2011 – 31 Mar 2014
21.	Android Developer Ecosystem in Singapore (Phase 2)	Industrial (Motorola Foundation)	PI	USD 75,000	1 Jan 2011 – 31 Dec 2011
22.	Android Developer Ecosystem in Singapore	Industrial (Motorola Foundation)	PI	USD 50,000	1 Oct 2009 – 31 Sep 2011
23.	Robust Building Recognition on Mobile Devices	Ministry of Education (AcRF Tier 1), Singapore	PI	SGD 50,000	1 Jan 2009 – 31 Oct 2011
24.	Investigation and Design of a Cognitive Autonomous	DRTech, Singapore	PI	SGD 453,100	1 Apr 2007 – 30 Oct 2011

	Vehicle				
25.	BlueBus	Industrial (Apple Singapore)	PI	SGD 120,000	4 May 2006 – 30 Apr 2009
26.	Veno II: Universal Transport in 4th Generation Communications	NTU Singapore and CQUPT China	Collaborator	SGD 3,720,000	1 Aug 2006 – 31 July 2009
27.	Mr I Chat	Industrial (Fllage.com)	Co-PI	SGD 250,000	1 Aug 2005 – 31 Jul 2006
28.	Buddy Finder	Industrial (Motorola Singapore)	PI	SGD 20,000	25 Aug 2004 – 31 Jul 2006
29.	Wireless Mobile Interactive Learning	Industrial (Hewlett Packard Inc.)	PI	USD 140,000	12 Aug 2003 – 31 Jul 2006

Total grant as PI = CAD 110,000 + CAD 120,000 + CAD 10,000 + CAD 30,000 + CAD 15,000 + CAD 30,000 + CAD 30,000 + CAD 3,000 + CAD 60,000 + CAD 30,000 + CAD 238,427.60 (KRW 250,000,000) + CAD 11,444.52 (KRW 12,000,000) + CAD 19,074.21 (KRW20,000,000) + CAD 449,390.43 (SGD 467,052) + CAD 102,110.63 (USD 75,000) + CAD 68,073.75 (USD 50,000) + CAD 48,109.25 (SGD 50,000) + CAD 435,966.02 (SGD 453,100) + CAD 115,462.20 (SGD 120,000) + CAD 19,243.70 (SGD 20,000) + CAD 190,606.50 (USD 140,000)
= CAD 2,135,908.81 (USD 1,568,560.48)

Service as Editor, Associate Editor and Editorial Committee for International Journals
- I am serving as the Editor-in-Chief for the "Journal of Advances in Information Technology" (http://www.jait.us/) from September 2020 to the present. I previously served as the Associate Editor-in-Chief from the year 2009 to 2020.
- I am serving as a Managing Editor for the "International Journal of Information Technology" (http://www.intjit.org/) from the year 2005 to the present.
- I have served as a Guest Editor for the Special Issue on Computing and Artificial Intelligence in the "Applied Sciences" (https://www.mdpi.com/journal/applsci) journal from November 2019 to the present.

Service as Conference Chair / Committee Chair in Conferences
- I have served as the:
  1) Program Co-Chair for the 36th IEEE Canadian Conference on Electrical and Computer Engineering (CCECE 2023), Regina, SK, Canada, September 24-27, 2023.
  2) Program Committee Chair for the 5th International Conference on Machine Learning and Natural Language Processing (MLNLP 2022), Sanya, China, December 23-25, 2022.

3) Program Co-Chair for the 5th International Conference on Intelligent Robotics and Control Engineering (IRCE 2022), Tianjin, China, September 23-25, 2022.
4) Publicity Chair for the 5th International Conference on Control and Computer Vision (ICCCV 2022), Xiamen, Chin, August 19-21, 2022
5) Conference Co-Chair for the 7th Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2022), Tianjin, China, July 1-3, 2022.
6) Publications Chair for the 4th International Conference on Algorithms, Computing and Artificial Intelligence (ACAI 2021) to be held in Sanya, China, December 22-24, 2021
7) Program Chair for the 4th International Conference on Intelligent Robotics and Control Engineering (IRCE 2021) held via Zoom, September 18-20, 2021.
8) General Conference Chair for the 6th Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2021) held via Zoom, July 16-18, 2021.
9) Publicity Chair for the 6th International Workshop on Pattern Recognition (IWPR 2021) held via Zoom, June 25-27, 2021
10) Publications Chair for the 2nd International Conference on Advanced Information Science and System (AISS 2020) held in Shenzhen, China, November 18-20, 2020
11) Program Chair for the 3rd International Conference on Intelligent Robotics and Control Engineering (IRCE 2020) held via Zoom, August 10-12, 2020.
12) General Conference Chair for the 5th Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2020) held via Zoom, July 22-24, 2020.
13) Publicity Chair for the 5th International Workshop on Pattern Recognition (IWPR 2020) held via Zoom, June 19-21, 2020
14) Publication Chair for the 2019 International Conference on Algorithms, Machine Learning and Signal Processing (AMLSP 2019) held in Singapore, Nov 15-17, 2019.
15) Program Chair for the 2nd International Conference on Intelligent Robotic and Control Engineering (IRCE 2019) held in Singapore, Aug 26-29, 2019.
16) General Conference Chair for the 4th Asia-Pacific Conference on Intelligent Robot System (ACIRS 2019) held in Nagoya, Japan, July 13-15, 2019.
17) Program Chair for the 4th International Workshop on Pattern Recognition (IWPR 2019) held in Nanjing, China, June 28-30, 2019.
18) Technical Program Chair for the 2nd International Conference on Control and Computer Vision (ICCCV 2019) held in Jeju Island, South Korea, June 15-18, 2019.
19) General Conference Chair for the 2018 3rd Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2018) held in Singapore, July 21-23, 2018.
20) Technical Program Chair for the 2018 International Conference on Control and Computer Vision (ICCCV 2018) held in Singapore, June 15-18, 2018.
21) Program Chair for the 2018 International Workshop on Pattern Recognition (IWPR 2018) held in Jinan, China, May 19-21, 2018.
22) Conference Co-Chair for the 5th International Conference on Signal Processing and Information Communications (ICSPIC 2018) held in Seoul, Korea, January 21-23, 2018.
23) Conference Co-Chair for the 2017 International Conference on Communication and Electronics Information (ICCEI 2017) held in Singapore, Sep 1-3, 2017.
24) Conference Chair for the 2017 International Conference on Advances in Information Technology (ICAIT 2017) held in Kathmandu, Nepal, March 3-5, 2017.

25) Publicity Chair for 13th IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing (CCGrid2013)
26) PC Track Chair for the "Security and Trustworthy Computing" Track of the 18th IEEE Int'l Conference on Parallel and Distributed Systems (ICPADS 2012)
27) Demo Chair for the 9th International Conference on Human Computer Interaction with Mobile Devices and Services (MobileHCI2007)
28) Local Arrangements Co-Chair for the 13th International Multimedia Modelling Conference (MMM2007)
29) Publicity Co-chair in the 3rd International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2005)
30) Publications Co-chair in the 4th Asian Control Conference (ASCC 2002)

Service as a Session Chairman / (Special) Session Organizer in Conferences

- I have served as the Session Chairman for the following conferences:
  1) 5th International Conference on Computer, Software Engineering and Applications (CSEA 2023).
  2) 5th International Conference on Machine Learning and Natural Language Processing (MLNLP 2022).
  3) 5th International Conference on Control and Computer Vision (ICCCV 2022).
  4) 5th International Workshop on Pattern Recognition (IWPR 2020)
  5) 2017 International Conference on Advances in Information Technology (ICAIT 2017)
  6) The IEEE 2010 International Conference on Image Processing (ICIP 2010)
  7) The International Workshop on Future Trends on Design and Analysis of Dynamic Networks (FTDA-DN) 2008.
  8) The 9th International Conference on Human Computer Interaction with Mobile Devices and Services (MobileHCI2007)
  9) The 26th IEEE International Performance Computing and Communications Conference (IPCCC'07)
  10) The 9th International Conference on Control, Automation, Robotics and Vision (ICARCV 2006)
  11) The 6th British Machine Vision Conference (BMVC'95)
  12) The International Workshop on Games Research and Development (CyberGames 2005)
  13) The 3rd International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2005)

Service as a Reviewer
- I have served as a reviewer for the following international journals and conferences:

  <u>Journals</u>
  1) Journal of Engineering Research (2022)
  2) Quantitative Imaging in Medicine and Surgery (QIMS, Quant Imaging Med Surg.) (2022)
  3) BioEngineering (2021)
  4) International Journal of Imaging Systems and Technology (2021)
  5) Journal of Ambient Intelligence and Humanized Computing (2021)
  6) Journal of Ambient Intelligence and Smart Environments (2020)

7) IEEE Access (2020)
8) Journal of Ambient Intelligence & Humanized Computing (2020)
9) Results in Physics (2019)
10) Journal of Network and Computer Applications (2019)
11) Complexity (2018)
12) Security and Communication Networks (2017)
13) International Journal for Pattern Recognition and Artificial Intelligence (2016)
14) Frontiers in Computer Science (2012)
15) IEEE Systems Journal (2012)
16) IEEE Journal of Parallel and Distributed Computing (2012)
17) Computer Communications (2009)
18) Journal of Electrical and Computer Engineering (2009)
19) IEEE Journal on Selected Areas in Communications (2009)
20) Science Research Essays (2008)
21) International Journal of Computer Science & Applications (2007)
22) IEEE Communications (2007)
23) IEEE Wireless Communications (2006)
24) International Journal of Imaging Systems and Technology (2006)
25) International Journal of Information Technology (2006)
26) IEEE Transactions on Education (2005)
27) Journal for Wireless and Personal Communications (2004)
28) Journal for Real Time Imaging (2001)
29) Proceedings of IEE (1999)

Conferences
1) 2022 International Symposium on Intelligent Robotics and Systems (ISoIRS 2022)
2) 2022 4th International Conference on Computer, Software Engineering and Applications (CSEA 2022).
3) The 2021 International Joint Conference on Robotics and Artificial Intelligence (JCRAI 2021)
4) The 4th International Conference on Signal Processing and Information Communications (ICSPIC 2021)
5) The 3rd High Performance Computing and Computational Intelligence Conference (HPCCI 2021)
6) The 9th International Conference on Communication and Electronics Information (ICCEI 2021)
7) The 3rd International Conference on Computer, Software Engineering and Applications (CSEA 2021)
8) The 2020 Symposium on Pattern Recognition and Applications (SPRA 2020)
9) The 10th International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2020)
10) The 2nd High Performance Computing and Computational Intelligence Conference (HPCCI 2020)
11) The 8th International Conference on Communication and Electronics Information (ICCEI 2020)
12) The 2nd International Conference on Computer, Software Engineering and Applications (CSEA 2020)
13) The 2019 International Electronics Communication Conference (IECC 2019)

14) The 7th International Conference on Communication and Electronics Information (ICCEI 2019)
15) The 9th International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2019)
16) 2019 High Performance Computing and Computational Intelligence Conference (HPCCI 2019)
17) The 4th International Workshop on Pattern Recognition (IWPR 2019)
18) The 3rd Asia-Pacific Conference on Intelligent Robot Systems (ACIRS 2018)
19) The 7th International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2017)
20) The 6th International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2016)
21) The 5th International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2015)
22) The Fourth International Joint Conference on Ambient Intelligence (AmI-2013)
23) The 13th IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing (CCGrid2013)
24) The 18th IEEE Int'l Conference on Parallel and Distributed Systems (ICPADS 2012)
25) The Third International Conference on Networking and Computing (ICNC 2012)
26) The Sixth International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC 2012)
27) The 16th IEEE Int'l Conference on Parallel and Distributed Systems (ICPADS 2010)
28) The International Conference on Wireless and Ubiquitous Systems (ICWUS 2010)
29) The Eighth ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-10)
30) The IEEE International Conference on Communications (ICC2009)
31) The International Conference on Advanced Infocomm Technology (ICAIT) 2008.
32) The International Workshop on Future Trends on Design and Analysis of Dynamic Networks (FTDA-DN) 2008.
33) The Fifth IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS2008)
34) The First International Conference on Immersive Telecommunications 2007 (IMMERSCOM2007)
35) The International Conference on Biomedical and Pharmaceutical Engineering 2006 (ICBPE2006)
36) The 4th International Conference on Communications, Circuits and Systems (ICCCAS 2006)
37) The International Conference on Automation, Robotics and Computer Vision (ICARCV 2002, 2003 and 2004)
38) The 8th International Conference on Human Computer Interaction with Mobile Devices and Services (MobileHCI2006)
39) The 3rd International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2005)
40) The International Conference on Mobile Ad-hoc and Sensor Networks (MSN'05)

41) The IEEE Global Telecommunications Conference (GlobeCom 2005, GlobeCom 2007)
42) The IEEE 62nd Semiannual Vehicular Technology Conference (VTC'F05)
43) The International Resource Management Association Conference (IRMA 2005)
44) The International Conference on Networks (ICON 2004 and 2006)
45) The 38th Hawaii International Conference on System Science (HICSS-38) 2004

Service as an External Examiner

- I have served as an external examiner for the following thesis students:

1) Dongxian Li, "Design optimization of sloshing tank using weakly compressible mesh free model", MASc Thesis, University of Regina, May 4th, 2023.
2) Abhijeet Boragule, "SmartFace: An Intelligent Device for Security and Surveillance", PhD Thesis, Gwangju Institute of Science and Technology, April 13th 2023.
3) Benjamin Denham, "Tolerant Machine Learning for Deficient Training Data", PhD Thesis, Auckland University of Technology, March 6th, 2023.
4) Young-min Song, "Online Multi-Object Tracking with Hierarchical Data Association: Applying Filtering Based Motion and Appearance Models", PhD Thesis, Gwangju Institute of Science and Technology, May 30th, 2022.
5) Yongsang Yoon, "Action Recognition in Unconstrained Condition and It's Application", PhD Thesis, Gwangju Institute of Science and Technology, November 26th, 2021.
6) Vignesh Shankar, "Clinical-GAN: Trajectory Forecasting of Clinical Events using Transformer and Generative Adversarial Networks", MASc Thesis, University of Regina, November 15th, 2021.
7) Suby Singh, "Pneumonia Detection with Game-Theoretic Rough Sets", MASc Thesis, University of Regina, November 5th, 2021.
8) Hafiz Sami Ullah, "An Optimized Deep Learning Based Approach for Crop and Weed Segmentation in Precision Agriculture", MASc Thesis, University of Regina, July 19th, 2021.
9) Yong-Jun Chang, "Methods of Depth Information Estimation for Various Lighting and Multi-spectral Stereo Vision System", PhD Thesis, Gwangju Institute of Science and Technology, November 16th, 2020.
10) Sung-An Lee, "A Study of Methods for Accurate Depth Map Estimation using Techniques of Computational Camera and Photography", PhD Thesis, Gwangju Institute of Science and Technology, May 22nd, 2020.
11) Hyunguk Choi, "Person Re-Identification and Model Compression for Visual Surveillance Systems" PhD Thesis, Gwangju Institute of Science and Technology, November 29th, 2019.
12) Dong-Won Shin, "Local and Global Correspondence Establishing Techniques for simultaneous Localization and Mapping", PhD Thesis, Gwangju Institute of Science and Technology, May 24th, 2019.
13) Ji-Hun Mun, "Geometrical Characteristics Estimation using Unsupervised Learning Beyond the Light Field Images", PhD Thesis, Gwangju Institute of Science and Technology, May 24th, 2019.
14) Kwangjin Yoon, "Data Association Methods for Tracking Multiple Objects in Videos", PhD Thesis, Gwangju Institute of Science and Technology, May 24th, 2019.

Achievements with Local Industries

- **Founder of "Android Developer Singapore".** I am the founder of the "Android Developer Singapore", http://android.sce.ntu.edu.sg/index.html, an online community for Android developers and users in Singapore. We have conducted a series of seminars and trainings for staff and students of Tertiary Institutions in Singapore in the year 2010.
- **Chief Judge of MOTODEV Competition.** I have served as the chief judge at the MotoDev competition, a nation-wide software development competition organized by Motorola Singapore for tertiary students, in August 2006.
- **Commercialization of the "BlueZone" project**. The "BlueZone" project, a Bluetooth-based content delivery platform, has been commercialized through the company IBsolution, a startup company supported by NTU Ventures, in 2006.
- **Commercialization of the "Buddy Finder" and "Traffic Cam" application**. Two applications, "Buddy Finder" and "Traffic Cam", have been commercialized as a result of the NTU-Motorola-DNA Comms partnership which started back in 2001 (reported in the ST on 25th August 2004)
- **NTU-Apple MOU**. I have initiated an NTU-Apple MOU on 4th May 2006. Apple will provide NTU with their latest products for the development of collaborative projects in the areas of mobile communications and interactive digital media. Apple will also support our SCE students by giving them scholarships and traveling expenses to attend the Apple Worldwide Developer's Conference (WWDC) in San Francisco
- **NTU-Motorola-DNA Comms MOU**. I have initiated an NTU-Motorola-DNA Comms MOU on 24th August 2004 where we undertake a few collaborative projects with our Industrial partners on Mobile and Wireless Communications. Motorola will provide us with their latest, state-of-the-art handsets with GPS capability (including beta test models) and DNA Comms will provide us with the Data Network support.

Graduate Students Supervised

- I have supervised the following graduate students:

	Degree	Thesis / Project / Report Title	Graduation Year
Amirhossein Motavali	M.A.Sc. (Thesis)	DSA-BEATS: Multi Step, Multi-variate Dual Self-Attention N-BEATS Model for Forecasting COVID-19 Hospitalization	Oct 2023
Seyed Hamid Mousavi	M.A.Sc. (Thesis)	Improving Semantic Segmentation of Difficult Classes in Autonomous Driving using Attention-Convolution Feature Extractor	Oct 2023
Yamin Mowla	M. Eng. (Co-op)	Co-op Experience as a Data and Analytics Co-op Student at Adastra	Aug 2023
Sara Roshan	M. Eng. (Co-op)	A Co-op Experience as an IT Administrator at Brandt	Aug 2023
Jingkang Yang	M. Eng. (Project)	Application of Image Super Resolution in Self-Driving Car Object Detection using SRGAN and	Apr 2023

		YOLOv8	
Nima Asadi Dehmirahmadi	M. Eng. (Project)	An improved Faster RCNN-based algorithm for pedestrian detection in autonomous driving systems	Apr 2023
Shreyans Shah	M. Eng. (Co-op)	A Co-op Experience as a Research Assistant at Agriculture & AgriFood and as a Java Developer at Microsemi	Apr 2023
Akash Marwaha	M. Eng. (Co-op)	A Co-op Experience as an "Operations & Maintenance Student" at SaskEnergy	Apr 2023
Rudra Thakkar	M. Eng. (Co-op)	A Co-op Experience at the Canadian Institute for Public Safety Research and Treatment (CIPSRT)	Apr 2023
Sreyas Menon	M. Eng. (Co-op)	A Co-op Experience as a Network Analyst Trainee at ISM	Apr 2023
Pratik Zadafiya	M. Eng. (Project)	Attention gate Residual U-net for brain tumor segmentation of MRI images	Dec 2022
Tejal Patel	M. Eng. (Co-op)	A Co-op Experience as a System Administrator at the University of Regina	Dec 2022
Priya Shah	M. Eng. (Co-op)	A Co-op Experience as a Delivery Automation Software Developer at Nokia	Dec 2022
Lakshay Sharma	M. Eng. (Co-op)	A Co-op Experience as a Programmer Analyst at the Collaborative Centre for Justice and Safety (CCJS)	Dec 2022
Aysha Syed	M. Eng. (Co-op)	A Co-op Experience as a Data Engineer at Conexus Credit Union	Dec 2022
Kassem Kaysaniye	M. Eng. (Co-op)	A Co-op Experience as an Engineering Assistant at SaskTel	Dec 2022
Sangeeta Sharma	M. Eng. (Co-op)	A Co-op Experience as a Project Intern at the Brandt Group of Companies	Dec 2022
Chi Mai Kim Ho	M.A.Sc. (Thesis)	Network intrusion detection via flow-to-image conversion	Oct 2022
Xinyu Liu	M. Eng. (Project)	Human Fall Detection Based on ResNet and LSTM Network in Surveillance Cameras	Aug 2022
Oisharya Dhar	M. Eng. (Project)	Connected ResU-net: A Deep Learning Model for Segmentation of Breast Cancer Ultrasound Images	Aug 2022
Helly Shah	M. Eng. (Co-op)	A Co-op Experience as a Software Developer Coop Student at TIIK Tech INC	Aug 2022
Nidhi Sarah Thomas	M. Eng. (Co-op)	A Co-op Experience at the Ministry of Immigration and Career Training	Aug 2022
Rezvan Shokrani	M. Eng. (Project)	Emotion Shift Detection in Conversations	Apr 2022

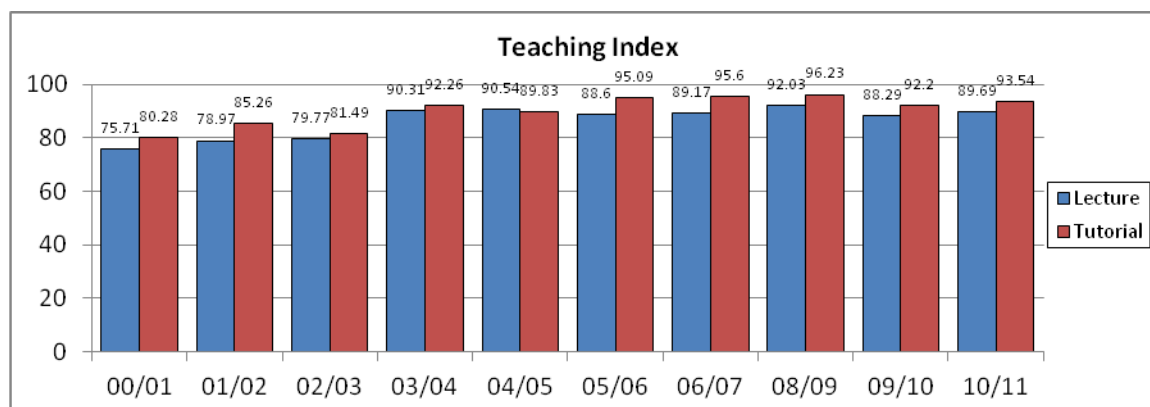| Dhruval Patel	M. Eng. (Co-op)	A Co-op Experience as a Digital Repository Co-op Student for Dr. John Archer Library at University of Regina	Apr 2022
Rupinder Kaur	M. Eng. (Project)	Facial Anime Characters Generation with Deep Convolutional Generative Adversarial Networks	Aug 2021
Rahila Dhuka	M. Eng. (Co-op)	A Co-op Experience as an IT Support Analyst at the University of Regina	Aug 2021
Milin Patel	M. Eng. (Co-op)	A Co-op Experience as a Training and Online Course Assistant for the Faculty of Business Administration in the University of Regina	Aug 2021
Dhaval Bhailalbhai Patel	M. Eng. (Co-op)	Co-op Term Report at the Saskatchewan Government Insurance (SGI)	Apr 2021
Reema Jiyani	M. Eng. (Co-op)	Co-op Placement Report at the Government of Saskatchewan	Apr 2021
Tanvi Dave	M. Eng. (Co-op)	Co-op Placement Report at the Saskatchewan Government Insurance (SGI)	Aug 2020
Jimmy Addison Lee	Ph.D.	Correspondence Matching in Urban Scenes across Different Views	2011
Lin Aung Thet	M.Sc.	Reliable Matching of Building Facades with Large Viewpoint Changes Using Iterative Reliability Verification Algorithm	2010
Jacky Tjoa	M.Sc.	Bluebus: A Cost-Effective Solution For Providing Infotainment System On Public Buses In Singapore	2009
Wang Huiqing	Ph. D.	Providing Quality of Service in Wireless Ad Hoc Networks	2008
Zhou Zhi	Ph. D.	Securing Geographical Routing in Mobile Ad Hoc Networks	2007
Sanju Sunny	M. Eng. (Thesis)	Text Entry on Mobile Devices	2006
Yang Peng	M. Eng. (Thesis)	Scalable Routing in Mobile Ad Hoc Networks (MANETs)	2006
Amol Dabholkar	M. Eng. (Thesis)	Secure Key Establishment for Low Power Devices using ECC.	2005

Teaching Achievements

Awards
- **Winner of the NTU Excellence in Teaching Award 2005.** I was the SCE winner of the Excellence in Teaching Award in 2005. I was nominated twice in year 2004 and year 2005.
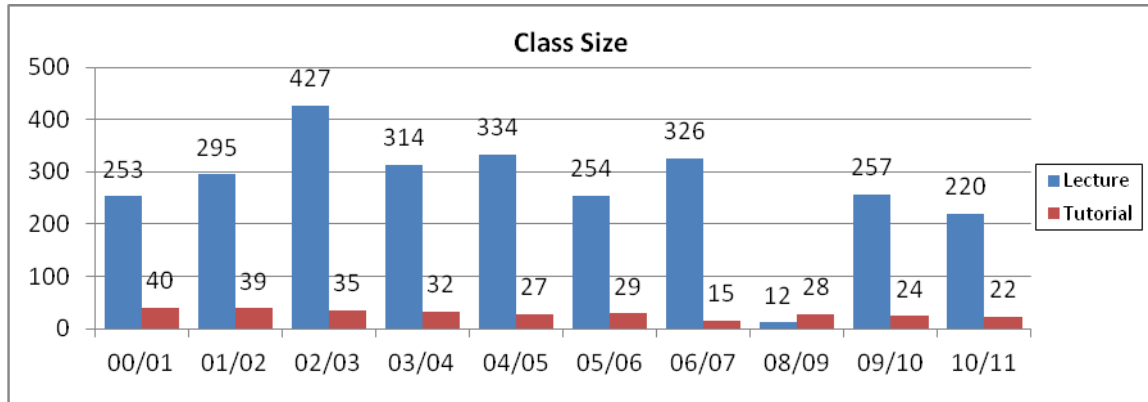
- **Winner of the SCE Most Popular Year 1 Lecturer Award.** I won this award for four consecutive years 2004 to 2007, and again in 2010. This award is given by the School of Computer Engineering Club. All the SCE lecturers from respective years were put to a vote by all the SCE students.

Mentoring Student Teams in Competitions
- **Kaimono**. I mentored a combined NTU/SMU team of 4 students to win the Singapore National Microsoft Imagine Cup Competition 2005 and thus winning the right to represent Singapore in the Microsoft Imagine Cup World Finals in Yokohama, Japan in July 2005
- **Autoshop**. I mentored this team of 4 students to
  - Win the Singapore Microsoft .net Competition 2003 (out of 55 teams)
  - Win the Asia-Pacific Microsoft .net Competition 2003 in Beijing, China (out of 3,000 teams)
  - Take joint-3rd place with UK in the Worldwide Microsoft Imagine Cup 2003 in Barcelona, Spain
  - Win the Grand Prize at the Wireless Challenge 2003, organized by the Singapore IT Federation (SITF).
  - Win the CISCO System's Award for the Most Innovative WLAN solution in 2003
  - Win the Gold Award in the NTU College of Engineering Technology Week's Most Outstanding Exhibit award in 2003.
- **Living in Fine Exuberance (L.I.F.E.)**. I mentored another team of 5 students to
  - Win the Singapore Microsoft .net Competition 2002
  - Take 3rd place in the Asia-Pacific Microsoft .net Competition 2002 in Seoul, Korea
  - Win the Best Idea Award at the Wireless Java Jam 2002
  - Win the Audience Choice Award at the Wireless Java Jam 2002
  - 1st Runner up in the Singapore Microsoft .net Competition 2003
  - Win the Merit Prize in the Wireless Challenge 2003
  - Win the Siemens Mobile Prize for Location Based Services 2003
- **UPnP over Bluetooth**. I mentored this team of 5 students to qualify for the World Finals of the IEEE Computer Society International Design Competition (CSIDC) 2001 in Washington D.C. (only 10 teams out of 86 teams qualified for the World Finals) for their project "Universal Plug and Play over Bluetooth". The team went on to win an Honorable mention for NTU.

Teaching Index

Class Size

Courses Taught

University of Regina, Canada
- Artificial Intelligence (ENSE 411)
- Machine Learning (ENSE 412)
- Practical Deep Learning (ENSE 811)
- Applications of Deep Learning in Computer Vision (ENSE 812)
- Software Systems Design (ENSE 470/ENSE370)

Gwangju Institute of Science and Technology, Republic of Korea
- Artificial Intelligence (EC4209)
- Computer Programming (GS1401)
- Computer System Theory (EC3209)
- Data Structures and Algorithms (GS2402)
- Signals and Systems (EC3202)

Shenzhen Institute of Advanced Technology, P.R.China
- Introduction to Cloud Security

Nanyang Technological University Singapore, School of Computer Engineering
- Biostatistics (Graduate Course BI6104)
- Computer Networks (SC302/CPE302)
- Digital Communications (SC205/CPE301)
- Engineering Mathematics (CE104)
- Engineering Mathematics (RE1001)
- Foundation Mathematics (CSC103)
- Great Ideas in Computing (CE1004/CZ1004)
- Logic Design (SC102/CPE104)
- Mathematics I (Calculus, Prob & Stats) (SC104/CPE104)
- Mathematics II (Linear Algebra, Differential Eqns) (SC107/CPE106)

Nanyang Technological University Singapore, Center for Continuing Education
- Advanced C Programming and Software Development for Embedded Systems (CCE100701823)
- Mobile Solutions for Air Travel Services (CCE110302023)

- Object Oriented Programming in C++ (CCE090601403)
- Object Oriented Programming in C# (CCE090801421)
- Technical Landscape Course for the Singapore Aviation Academy (CCE111202433)
- Video Processing and Transmission Fundamentals (CCE110502115)

List of Publications

Number of Book Chapters: 7
Number of Journal Papers: 53
Number of Conference Papers: 69
Number of Patents: 8
Number of Invention Disclosures: 2
Number of Technical Reports: 1
Number of Thesis: 2

Book Chapters

1. K.C.Yow, B.C.Seet, "Mobile Interactive Learning in Large Classes: Towards an Integrated Instructor-Centric and Peer-to-Peer Approach", *Multiplatform E-Learning Systems and Technologies - Mobile Devices for Ubiquitous ICT-Based Education*, 2008.
2. I.Weber, K.C.Yow, B.H.Soong, "Tuning into students' mobile learning needs: a Singapore initiative," Mobile Learning: A Handbook for Educators and Trainers, Taylor and Francis Inc., New York, pp.150-156, 2005
3. K.C.Yow, N.Mittal, "Multimedia Messaging Peer", Mobile Commerce Applications, 2004.
4. K.C.Yow, N.N.Moertiyoso, "Java 2 Micro Edition for Enterprise Application", Mobile Commerce Applications, 2004.
5. Y.P.Tan, K.C.Yow, G.Gazzard, "Determining Differences in Visual Field Patterns in Open Angle and Angle Closure Glaucoma," Advances in Signal Processing, Robotics and Communications, pp. 93-96, 2001.
6. A.Dabholkar, K.C.Yow, "Automatic Human Face Detection and Tracking," Advances in Signal Processing, Robotics and Communications, pp. 87-92, 2001.
7. Q.Chen, K.C.Yow, "Contour Extraction in Ultrasound Images using Ziplock Snakes," Advances in Signal Processing, Robotics and Communications, pp. 81-86, 2001.

Journal Papers

1. S.Vosta and K.C.Yow, "KianNet: A violence detection model using an attention-based CNN-LSTM structure", In *IEEE Access*, vol. **11**, pp. 137352-137365, 4 December 2023, doi: 10.1109/ACCESS.2023.3339379. (Impact Factor: 3.745)
2. S.H.Mousavi, M.Seyednezhad, and K.C.Yow, "Efficient Attention-Convolution feature extractor in semantic segmentation for autonomous driving systems", In *IEEE Access*, vol. **11**, pp. 137352-137365, 13 October 2023, doi: 10.1109/ACCESS.2023.3324600. (Impact Factor: 3.745)
3. A.Motavali, K.C.Yow, N.Hansmeier and T.C.Chao, "DSA-BEATS: Dual self-attention N-BEATS model for forecasting Covid-19 hospitalization", In *IEEE Access*, vol. **11**, pp. 137352-137365, 25 September 2023, doi: 10.1109/ACCESS.2023.3318931. (Impact Factor: 3.745)

4. F.Munir, S.Azam, K.C.Yow, B.G.Lee and M.Jeon, "Multimodal fusion for sensorimotor control in steering angle prediction", *Engineering Applications of Artificial Intelligence*, Volume 126, Part D, 107087, November 2023, https://doi.org/10.1016/j.engappai.2023.107087.

5. G.Singh, S.F.Stefenon and K.C.Yow, "Interpretable visual transmission lines inspections using pseudo-prototypical part network", *Machine Vision and Applications,* **34**, 41 (5 Apr 2023). https://doi.org/10.1007/s00138-023-01390-6 (Impact Factor: 2.526).

6. S.F.Stefenon, K.C.Yow, A.Nied and L.H.Meyer, "Classification of distribution power grid structures using inception v3 deep neural network", *Electrical Engineering*, 27 Aug 2022. https://doi.org/10.1007/s00202-022-01641-1. (Impact Factor: 1.180)

7. J.Yu, Y.Lee, K.C.Yow, M.Jeon and W.Pedrycz, "Abnormal Event Detection and Localization via Adversarial Event Prediction," in *IEEE Transactions on Neural Networks and Learning Systems*, vol. **33**, no. 8, pp. 3572-3586, Aug. 2022, doi: 10.1109/TNNLS.2021.3053563. (Impact Factor: 8.793).

8. C.M.K.Ho, K.C.Yow, Z.Zhu and S.Aravamuthan, "Network intrusion detection via flow-to-image conversion and vision transformer classification". In *IEEE Access*, vol. **10**, pp. 97780-97793, 18 August 2022, doi: 10.1109/ACCESS.2022.3200034. (Impact Factor: 3.745)

9. A.Salehpour, I.Al-Anbagi, K.C.Yow and X.Cheng, "Modeling Cascading Failures in Coupled Smart Grid Networks", in *IEEE Access*, vol. **10**, pp. 81054-81070, 29 July 2022, doi: 10.1109/ACCESS.2022.3194989. (Impact Factor: 3.745)

10. S.F.Stefenon, G.Singh, K.C.Yow and A.Cimatti, "Semi-ProtoPNet Deep Neural Network for the Classification of Defective Power Grid Distribution Structures", *Sensors*, **22**(13), 4859; 27 June 2022, https://doi.org/10.3390/s22134859. (Impact Factor: 3.576).

11. S.Vosta and K.C.Yow, "A CNN-RNN Combined Structure for Real-World Violence Detection in Surveillance Cameras", *Applied Sciences,* **12**(3), 1021; 19 January 2022, https://doi.org/10.3390/app12031021. (Impact Factor: 2.838).

12. S.F.Stefenon, M.H.D.M.Ribeiro, A.Nied, K.C.Yow, V.C.Mariani, L.d.S.Coelho, and L.O.Seman,"Time Series Forecasting using Ensemble Learning Methods for Emergency Prevention in Hydroelectric Power Plants with Dam", *Electric Power Systems Research*, Volume **202**, 107584, January 2022. https://doi.org/10.1016/j.epsr.2021.107584. (Impact Factor: 3.211).

13. S.F.Stefenon, L.O.Seman, N.F.S.Neto, L.H.Meyer, A.Nied, and K.C.Yow, "Echo state network applied for classification of medium voltage insulators", *International Journal of Electrical Power & Energy Systems*, Volume **134**, 107336, January 2022. https://doi.org/10.1016/j.ijepes.2021.107336. (Impact Factor: 5.62).

14. S.F.Stefenon, M.P.Corso, A.Nied, F.L.Perez, K.C.Yow, G.V.Gonzalez, and V.R.Q. Leithardt, "Classification of Insulators Using Neural Network Based on Computer Vision", *IET Generation, Transmission & Distribution*, 8 December 2021 https://doi.org/10.1049/gtd2.12353 (Impact Factor: 2.995).

15. G.Singh and K.C.Yow, "Object or Background: An Interpretable Deep Learning Model for COVID-19 Detection from CT-Scan Images", *Diagnostics*, **11**(9), 1732; 21 September 2021, https://doi.org/10.3390/diagnostics11091732. (Impact Factor: 3.706)

16. M.P.Corso, F.L.Perez, S.F.Stefenon, K.C.Yow, R.G.Ovejero, and V.R.Q. Leithardt, "Classification of Contaminated Insulators Using k-Nearest Neighbors Based on Computer Vision", *Computers*, **10**(9), 112, 9 September 2021, https://doi.org/10.3390/computers10090112. (Impact Factor: 2.316)

17. G.Singh and K.C.Yow, "An Interpretable Deep Learning Model for Covid-19 Detection With Chest X-Ray Images," in *IEEE Access*, vol. **9**, pp. 85198-85208, 8 June 2021, doi: 10.1109/ACCESS.2021.3087583. (Impact Factor: 3.745)

18. S.F.Stefenon, C.S.F.Neto, T.S.Coelho, A.Nied, C.K.Yamaguchi, and K.C.Yow, "Particle swarm optimization for design of insulators of distribution power system based on finite element method", *Electrical Engineering*, 6 June 2021. Doi: 10.1007/s00202-021-01332-3. (Impact Factor: 1.180)

19. G.Singh and K.C.Yow, "These do not Look Like Those: An Interpretable Deep Learning Model for Image Recognition," in *IEEE Access*, vol. **9**, pp. 41482-41493, 9 March 2021, doi: 10.1109/ACCESS.2021.3064838. (Impact Factor: 3.745)

20. J.A.Itajiba, C.A.C.Varnier, S.H.L.Cabral, S.F.Stefenon, V.R.Q.Leithardt, R.G.Ovejero, A.Nied, and K.C.Yow, "Experimental comparison of preferential vs. common delta connections for the star-delta starting of induction motors". *Energies*, vol. **14**(5), 1318, 1 March 2021. Doi: 10.3390/en14051318. (Impact Factor: 2.702)

21. N.F.S.Neto, S.F.Stefenon, L.H.Meyer, R.Bruns, A.Nied, L.O.Seman, G.V.Gonzalez, V.R.Q.Leithardt, and K.C.Yow, "A study of multi-layer perceptron networks applied to classification of ceramic insulators using ultrasound", *Applied Sciences*, **11**(4), 1592, 10 February 2021, doi:10.3390/app11041592. (Impact Factor: 2.217)

22. S.F.Stefenon, R.Z.Freire , L.H.Meyer, M.P.Corso, A.Sartori, A.Nied, A.C.R.Klaar, and K.C.Yow, "Fault Detection in Insulators Based on Ultrasonic Signal Processing Using a Hybrid Deep Learning Technique", *IET Science, Measurement & Technology,* **14**(10):953–961, 1 December 2020, doi:10.1049/iet-smt.2020.0083. (Impact Factor 2.23).

23. K.C.Yow and I.Kim, "General Moving Object Localization from a Single Flying Camera", *Applied Sciences*, **10**(19), 6945, 4 October 2020. (Impact Factor 2.474)

24. V.Q.Dinh, F.Munir, S.Azam, K.C.Yow, M.Jeon, "Transfer Learning for Vehicle Detection using Two Cameras with Different Focal Lengths", *Information Sciences*, **514**: pp.71-87, April 2020. DOI: 10.1016/j.ins.2019.11.034. (Impact Factor 5.524).

25. H.Choi, Y.Lee, K.C.Yow, and M.Jeon, "Block Change Learning for Knowledge Distillation", *Information Sciences*, **513**, pp. 360-371, Mar 2020. (Impact Factor: 5.524)

26. H.Choi, K.C.Yow and M.Jeon, "Training Approach using the Shallow Model and Hard Triplet Mining for Person Re-Identification", *IET Image Processing*, **14**(2):256-266, January 2020, doi: 10.1049/iet-ipr.2019.0334. (Impact Factor: 2.004)

27. Y.Song, K.Yoon, Y.C.Yoon, K.C.Yow and M.Jeon, "Online Multi-Object Tracking Framework with the GMPHD Filter and Occlusion Group Management", IEEE Access, 7, pp. 165103-165121, 2019, doi: 10.1109/ACCESS.2019.2953276. November 2019. (Impact factor 4.098).

28. J.Yu, K.C.Yow and M.Jeon, "Joint representation learning of appearance and motion for abnormal event detection", Machine Vision and Applications, 29:1157–1170, July 2018, DOI: 10.1007/s00138-018-0961-8. (Impact Factor: 1.605)

29. H.Hwang, H.Jeon, K.C.Yow, H.S.Hwang and E.Chung, "Image-based Quantitative Analysis of Tear Film Lipid Layer Thickness for Meibomian Gland Evaluation", *BioMedical Engineering OnLine*, **16**:135, December 2017. https://doi.org/10.1186/s12938-017-0426-8. (Impact Factor: 1.683)

30. J.Lee and K.C.Yow, "English-Korean Machine Translation with Politeness Level Considerations", Korean Journal of Undergraduate Research, 4(1):21-28, December 2017.

31. J.H.Nam and K.C.Yow, "A Data-driven Approach to the Automatic Classification of Korean Poetry", Journal of Advances in Information Technology, 8(3):172-176, August 2017. doi: 10.12720/jait.8.3.172-176.

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Invention Disclosures

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