# IEEE Ottawa Section Annual Report – 2020

November 2020





1.	I	EEE OTTAWA SECTION CHAIR'S REPORT	4
	1)	Success Stories	,
	2)	KEY ACTIVITIES	
	3)	ISSUES FACING THE UNIT	
	4)	AHEAD IN 2020	
	,		
2.	(	COMMITTEE REPORTS	6
	1)	ANNUAL GENERAL MEETING (AGM) PLANNING COMMITTEE	6
	2)	AWARDS COMMITTEE	
	3)	BYLAWS COMMITTEE	7
	4)	PUBLICATIONS COMMITTEE	8
	5)	EDUCATIONAL ACTIVITIES (EA) COMMITTEE	8
	6)	ENGINEERS-IN-TRANSITION (EIT) COMMITTEE	g
	7)	OTTAWA – SPECIAL INTEREST GROUP ON HUMANITARIAN TECHNOLOGY (SIGHT)	9
	8)	INDUSTRY RELATIONS COMMITTEE	10
	9)	LIFE MEMBER COMMITTEE	10
	10)	MEMBERSHIP DEVELOPMENT (MD) COMMITTEE	10
	11)	NOMINATIONS AND APPOINTMENTS	11
	12)	OTTAWA ROBOTICS COMPETITION (ORC) COMMITTEE	11
	13)	SENIOR MEMBERSHIP COMMITTEE	11
	14)	STRATEGIC PLANNING (SP) COMMITTEE	12
	15)	TEACHER IN SERVICE PROGRAM (TISP) COMMITTEE	12
3.	C	CHAPTER REPORTS	13
	1)	AESS – AEROSPACE AND ELECTRONICS SYSTEMS SOCIETY	17
	2)	AP/MTT - JOINT CHAPTER OF ANTENNAS AND PROPAGATION SOCIETY MICROWAVE THEORY & TECHNIQ	
	,	CIETY	
	3)	CI/SMC - JOINT CHAPTER OF COMPUTATIONAL INTELLIGENCE AND SYSTEMS, MAN AND CYBERNETICS	
	,	CIETY	15
	4)	CS - COMPUTER SOCIETY	16
	5)	COMSOC/BTS/CTS - JOINT CHAPTER OF COMMUNICATIONS SOCIETY, BROADCAST TECHNOLOGY SOCIETY	TY
	ANE	CONSUMER TECHNOLOGY SOCIETY	
	6)	CPMT - COMPONENTS, PACKAGING AND MANUFACTURING TECHNOLOGY SOCIETY	19
	7)	DEIS - JOINT OTTAWA-MONTREAL CHAPTER OF DIELECTRICS AND ELECTRICAL INSULATION SOCIETY	19
	8)	EDS/CAS/SSCS - JOINT CHAPTER OF ELECTRON DEVICES SOCIETY, CIRCUITS AND SYSTEMS SOCIETY,	AND
	Sol	LID-STATE CIRCUITS SOCIETY	20
	9)	EMC - ELECTROMAGNETIC COMPATIBILITY SOCIETY	21
	10)	EMBS - ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY	22
	11)	IMS - Instrumentation and Measurement Society	24
	5G	FOR SMART EVERYTHING: FROM SMART METERS TO THE NEW POWER GRID. WHAT IS NEEDED TO GET	
	THE	ERE? / AKSHAY SHARMA, SAN DIEGO, CA	
	12)		
	13)		
	14)	·	
	15)	,	
	16)		
		MOTE SENSING	
	17)	VTS - VEHICULAR TECHNOLOGY SOCIETY	30

4.	AFFINITY REPORTS	32
1)	AICN - ALLIANCE OF IEEE CONSULTANT NETWORK	32
2)	YP - YOUNG PROFESSIONALS	32
3)	WIE – WOMEN IN ENGINEERING	36
4)	IEEE ALGONQUIN COLLEGE STUDENT BRANCH	52
<b>5.</b>	IEEE OTTAWA SECTION EXECUTIVE 2020	55
<b>6.</b>	IEEE OTTAWA SECTION ELECTIONS FOR 2021 EXECUTIVES	55
<b>7.</b>	LIST OF 2020 SECTION EXECUTIVES AND OFFICERS	56
1)		56
2)	COMMITTEES	56
3)		
4)		
5)	STUDENT BRANCHES	59

## 1. IEEE Ottawa Section Chair's Report

#### 1) Success Stories

- Our Section and its Affinity Groups received multiple prestigious awards in 2020, as follows:
  - February: IEEE Ottawa Section received the "IEEE Canada Exemplary Large Section Award"
  - March: IEEE Ottawa Young Professionals Affinity Group received the "2019 IEEE Canada Young Professionals Affinity Group of the Year Award"
  - May: Ashna Narang from the IEEE Carleton University Student Branch and Robert Conrad from the IEEE University of Ottawa Student Branch received 2020 ICF Scholarship
  - June: IEEE Ottawa Women in Engineering Affinity Group received the "2020
     IEEE Women in Engineering Affinity Group of the Year Award"
  - July: IEEE Ottawa SIGHT Chapter received the IEEE HAC & SIGHT Special Fund for COVID-19 Projects
  - July: IEEE Carleton University EMBS Student Chapter received the "Overall Student Chapter Award"
  - August: IEEE Ottawa Young Professionals Affinity Group received the "IEEE Young Professionals Affinity Group Hall of Fame Award"
  - August: Anis Ben Arfi from the IEEE Ottawa Section received the "IEEE Educational Activities Meritorious Award"
- Our Section and its Chapters and Affinity Groups have organized several webinars since March 2020. These events were very well-received not only among the local community, but across Canada and overseas. For example, our PES and Measurement & Instrumentation Chapters co-organized a series of webinars attracting a wide range of audience from as far as Australia.

#### 2) Key Activities

- From March to September 2020, our Ottawa Section had 26 technical events, and 6 social events.
- Our Section has continued to host our monthly Section meeting without missing any during the pandemic.
- IEEE Section Congress (SC2020) planning the Ottawa Section has a Local Planning Committee. The suggestions and feedback from the Local Planning Committee are communicated directly to the Global Planning Committee.
- The 2020 Annual Bursary Program (\$3000) that aims to support students entering the first year of post-secondary education in IEEE related fields; nomination process has already started, and a final decision will be made before the end of 2020.
- In preparation for the AGM2020 on Oct 23, 2020, we have made the award nomination online https://www.ieeeottawa.ca/awards/.
- Our 76th AGM will be held virtually on Oct 23, 2020, and the Awards Ceremony will

recognize outstanding local industry (ICT, HiTech, CleanTech) and individuals (Engineer and Engineering Educator of the year), as well as officers/volunteers of the most progressed chapter, affinity and committee.

#### 3) Issues Facing the Unit

- Due to the unexpected COVID-19, SC2020 was not held as an in-person meeting in August 2020. Many activities our Section had planned for were cancelled. In particular, our highly successful Lunch&Learn program has been in halt since March 2020.
- Due to COVID-19 situation, many local chapters and societies did not host as many events as they had planned. We mitigated the COVID-19 impact by organizing several well-attended webinars, attracting world-class speakers such as Prof. Saifur Rahman.
- We had a comprehensive evaluation of whether to call off our Annual Awards Ceremony
  or hold it virtual. Throughout this process and based on the feedback received from our
  members and officers, we had the opportunity to re-evaluate our Awards Ceremony. Thus,
  we verified the significant value of the ceremony and its impact on our local community.
  The conclusion was to move forward with the virtual Awards Ceremony.
- Within the past quarter, we re-evaluated our Student Branch Representative selection procedure. We drafted an instruction handbook to be used as a reference by the Section Student Branch Representative and Student Branch Chairs. The outcome is a transparent and effective selection process that provides equal opportunity for all student members to actively contribute to their corresponding chapters and the Section as a whole

#### 4) Ahead in 2020

- Goals:
  - Increase memberships and elevations (Senior/Fellow)
  - Improve industry collaborations and partnerships
  - Facilitating students-industry networking
  - o Continuing the impactful webinars, aiming at international outreach
- Activities & Schedule:
  - 2021 IEEE Nuclear and Space Radiation Effects Conference (NSREC)
  - o IEEE Milestone proposed for the "First Fiber Bragg Grating Demonstration Achieved by Dr. Kenneth Hill and his colleagues at CRC in Ottawa in 1978"
  - IEEE Milestone proposed for the "First operational Geographic Information System (GIS) by Dr. Roger Tomlinson (1933-2014) at the federal Department of Forestry and Rural Development in Ottawa in 1967"
  - O IEEE Ottawa Communications Society (ComSoc), Consumer Technology Society (CTSoc), and Broadcast Technology Society (BTS) Joint Chapter along with IEEE Ottawa Section and IEEE Montreal Section are hosting and organizing the IEEE International Conference on Communications 2021 (ICC 2021) that is to be held in Montreal at the Palais des congrès de Montréal (Montreal Convention Centre) on June 14-June 18, 2021. For more information visit: <a href="https://icc2021.ieee-icc.org/">https://icc2021.ieee-icc.org/</a>

Dr. Winnie Ye Chair IEEE Ottawa Section

## 2. Committee Reports

#### 1) Annual General Meeting (AGM) Planning Committee

Chair: Ajit Paradasani, ajit.pardasani@ieee.org

Refer to vTools reporting.

#### 2) Awards Committee

Chair: Wahab Almuhtadi, almuhtadi@ieee.org

Members: Executive Officers of the Ottawa Section (Chair, Vice Chair, Secretary, Treasurer, Past

Chair), Raed Abdullah.

Website: <a href="http://www.ieeeottawa.ca/about/awards-2/">http://www.ieeeottawa.ca/about/awards-2/</a>

The Award Committee works closely with IEEE Ottawa Section chapters, committees, affinity groups, and student branches and encourages members, engineering community, academia and Industry to submit their nominations for the IEEE Ottawa Section Awards available on <a href="http://www.ieeeottawa.ca/about/awards-2/">http://www.ieeeottawa.ca/about/awards-2/</a>.

The Award winners are announced every year at the IEEE Ottawa Section Annual General Meeting-AGM.

#### The winners for the 2019 IEEE Ottawa Section Awards are as follows:

### **Corporate Awards:**

#### **Outstanding Information and Communications Technology Award:**

 Nokia for its commitment to innovation and network development, shaping the future of technology.

#### **Outstanding High Technology Award:**

• BlackBerry Limited for a significant uptake from the automotive industry's biggest brands, BlackBerry QNX has established itself as the premiere foundational software platform for today's cars and the connected and autonomous vehicles of the future.

#### **Outstanding Clean Technology Award:**

• BluWave-ai for use artificial intelligence (AI) and big data analytics to put the smart in smart grid and for more sustainable, affordable, & reliable energy.

#### **Appreciation Awards:**

Algonquin College for its continued valuable and well-regarded support of the activities of IEEE Ottawa Section.

## **AGM Keynote Speaker Appreciation**

#### **Appreciation Plaque:**

• Mr. Marc René de Cotret in appreciation of his contribution to the IEEE Ottawa Section as the AGM 2019 Keynote Speaker.

### **Recognition Individuals**

#### **Outstanding Educator Award**

• Dr. Sreeraman Rajan for outstanding graduate student mentorship, excellence in teaching and dedication to success of students.

#### **Outstanding Engineer Award**

• Dr. Gabriel Wainer for innovative and outstanding contributions to the development of modeling and simulation of discrete-event dynamic systems.

#### **Outstanding Service Award**

 Dr. Calvin Plett for three decades of service to the IEEE Carleton University Student Branch and the IEEE Ottawa.

#### **Outstanding Volunteer Award**

• Dr. Branislav Djokic for outstanding dedication and contributions through the service in many IEEE posts that led to the success of IEEE Ottawa Section.

#### **Recognition Ottawa Section Groups**

#### **Outstanding Chapter Award:**

• The Ottawa Chapter of Computer Society for organizing and hosting international conferences and technical events, and promoting Institute, Society, Region, and Section.

#### **Outstanding Affinity Group Award:**

• The Ottawa Women In Engineering for organizing technical and professional events..

#### **Outstanding Student Branch Award**

• The University of Ottawa IEEE Students Branch for organizing many events (technical/educational/social meetings, seminars, workshops), and in increasing membership development.

#### **Outstanding Committee Award**

The Ottawa Robotics Competition for their tremendous efforts to allow hundreds of Ottawa-area students explore STEM fields and to crush gender gaps in STEM fields.

## 3) Bylaws Committee

Chair: Branislav Djokic, <a href="mailto:branislav@ieee.org">branislav@ieee.org</a>
Vice Chair: Kexing Liu, <a href="mailto:Kexing.Liu@ieee.org">Kexing.Liu@ieee.org</a>

No activity is reported for this calendar year.

### 4) Publications Committee

Chair: Tejash Patel, tejashatel@ieee.org

Social Media: Erdem Yanikomeroglu, erdemy\_ca@ieee.org

Website: https://www.ieeeottawa.ca/publications/

#### **Achievements**

 Add conformance to IEEE publication policies to the new publication submissions by addition of a tick box that everyone has to check before submitting

 Send e-notice newsletters by-weekly instead of monthly in order to inform members about events more often

### 5) Educational Activities (EA) Committee

Chair: Branislav Djokic, <a href="mailto:branislav@ieee.org">branislav@ieee.org</a>
Website: <a href="mailto:http://www.ieeeottawa.ca/ea/">http://www.ieeeottawa.ca/ea/</a>

Total Number of Technical Meetings:
This Year (2020) 6
Last Year (2019) 3

Activity Date, Time, Location	Activity Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.) and Brief Description	Title/Speaker or Workshop Name	Attendance Total/IEEE/	Joint Activity Sponsors
Aug. 12, 2020, 6:30 PM – 7:30 PM	Tech Meeting (Webinar)	The Smart City Building Blocks & Their Synergy with Smart Villages Speaker: Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA	11/9	IEEE Ottawa Section PES, IMS, RS-PELS and ComSoc/CESoc/BTS Chapters, and Educational Activities.
July 30, 2020, 6:30 PM. – 7:30 PM	Tech Meeting (Webinar)	Measurement, Control and Protection in Smart Grid Energy Management Systems for Smart Buildings in a Smart City Speaker: Prof. Dr.	30/10	IEEE Ottawa Section IMS, PES, RS-PELS, and ComSoc/CESoc/BTS Chapters, and Educational Activities.

		Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA		
July 28, 2020, 6:30 PM. – 7:30 PM	Tech Meeting (Webinar)	Role of the Smart Grid in Facilitating the Integration of Renewables Speaker: Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA	60/45	IEEE Ottawa Section PES, IMS, RS-PELS and ComSoc/CESoc/BTS Chapters, and Educational Activities.
09 July 2020 06:30 PM to 07:30 PM	Tech Meeting (Webinar)	Josephson Arbitrary Waveform Synthesizer as a Quantum Standard of Voltage and Current Harmonics Speaker: Dr. Dimitrios Georgakopoulos, Senior Research Scientist, National Measurement Institute, Sydney, Australia	39/30	IEEE Ottawa Section PES, IMS, RRS/PELS and ComSoc/CESoc/BTS Chapters, and Educational Activities
18 Jun 2020 06:30 PM to 07:30 PM	Tech Meeting (Webinar)	Microgrid Stability Definitions, Analysis, and Modeling Speaker: Dr. Mostafa Farrokhabadi of BlueWave ai, Ottawa	76/57	IEEE Ottawa Section PES, IMS, RRS/PELS and ComSoc/CESoc/BTS Chapters, and Educational Activities
12 Nov 2019 02:00 PM to 03:00 PM	Tech Meeting	5G for Smart Everything: From Smart Meters to the New Power Grid. What is needed to get there? Speaker: Mr. Akshay Sharma	30/4	IEEE Ottawa PES and IMS Chapters and Educational Activities, in conjunction with NRC Electrical Power Measurements.

## 6) Engineers-in-Transition (EiT) Committee

Chair: Vacant

No activity is reported for this calendar year.

## 7) Ottawa – Special Interest Group on Humanitarian Technology (SIGHT)

Chair: Alfredo Herrera,

Our Committee has been very active this year, we help 11 meetings (on Google Meet) with as

many as 14 people attending. The first four meetings focused on defining how we could organize ourselves to help during the COVID-19 pandemic; we decided to come together to generate ideas that could be implemented with our combined skills set and the resources available to our IEEE committee.

The Ottawa-SIGHT wants to support efforts regarding COVID-19, despite knowing that many organisations are already working on similar efforts. It is important for our committee to help locally and, if we do it right, help indirectly and directly others across Canada and even around the world.

Our meetings helped us identify three potential projects that may help our local (Ottawa) community during the COVID-19 pandemic. Out of these ideas, one was chosen to be submitted for funding from the IEEE Humanitarian Activities Committee (HAC). The project was accepted and received funding in the amount of US \$5,000.00. We have been slowed down by events out of our control (family and work issues), but we have made significant progress; we look forward to make our progress known to the Ottawa Section members in hopes of adding more members to our team.

#### 8) Industry Relations Committee

Chair: Michael Lalonde, <u>michael.lalonde@ieee.org</u>
Website: <a href="mailto:http://ewh.ieee.org/r7/ottawa/lunchandlearn/">http://ewh.ieee.org/r7/ottawa/lunchandlearn/</a>

No activity is reported for this calendar year.

### 9) Life Member Committee

Chair: Wolfram Lunscher, wlunscher@gmail.com

#### **List of Activities**

Total Number of Technical Meetings:				
This Year (2020):	1			
Last Year (2019):	1			

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
Sept 19, 2019	Workshop and Team	Transmitter	TBD IEEE	Ottawa Amateur
Ottawa	Activity	Hunting Activity	TBD Total	Radio Club

## 10) Membership Development (MD) Committee

Chair: Jean-Claude Clarke, jeanclaude@ieee.org

## List of notable events held, sponsored or organized such as symposia, conferences, educational programs, job fairs, competitions etc.

A number of events were planned to improve membership growth in collaboration
with the student branches and the lunch and learn series. The Chair for MD
changed mid-year in February just before the covid-19 pandemic. As a result, all the
activities we cancelled. The new Chair plans to collaborate with students at local
universities to increase membership count.

#### List of special or unique events that are to be held next year

 Since most of the events are going online, we plan to work with other groups to collaborate on online events and have virtual MD booths to provide IEEE information.

#### 11) Nominations and Appointments

Chair: Anissa Shaddy anissa@ieee.org

No activity is reported for this calendar year.

#### 12) Ottawa Robotics Competition (ORC) Committee

Chair: Heidi Li and David Huynh

Vice Chair: Jiayun (Kelly) Xu, Imman Jami, and Loïc Darboux

Website: http://orc.ieeeottawa.ca

No activity is reported for this calendar year.

### 13) Senior Membership Committee

Chair: Dr. Sreeraman Rajan, Sreeraman@ieee.org

The Section had 12 Senior Member elevations in the year 2019 (Jan-Dec).

	Al Ridhawi	Isameel	
Ottawa Section			
	Amyot	Daniel	
Ottawa Section			
	Ghunem	Refat	
Ottawa Section			
	Hashemi	Mahmoud	
Ottawa Section			
	Karar	Abdullah	
Ottawa Section			
	Leuschner	Jeff	
Ottawa Section			
	Rad	M	
Ottawa Section			

	Repeta	Morris
Ottawa Section		
	Simsek	Murat
Ottawa Section		
	Spinello	Davide
Ottawa Section		
	Taheri	Shamsodin
Ottawa Section		
	Lakhssassi	Ahmed
Ottawa Section		

The Section had 13 Senior members elevations from the beginning of year 2020 till August 2020

The education and the education members distracted from the beginning of year 2020 till ranguet 2020					
Ottawa Section	Atia	Mohamed			
Ottawa Section	Barton	Ray			
Ottawa Section	Plesnik	Martin			
Ottawa Section	Ahmad	Saif			
Ottawa Section	Amani	Meisam			
Ottawa Section	Arcand	Jeffrey			
Ottawa Section	Bouida	Zied			
Ottawa Section	Liu	Shichao			
Ottawa Section	Mostaco-Guidolin	Leila			
Ottawa Section	Simonovich	Lambert			
Ottawa Section	Wang	Wenlu			
Ottawa Section	Chaudhry	Aizaz			
Ottawa Section	Sabbah	Ayman			

## 14) Strategic Planning (SP) Committee

Chair: Raed Abdullah, RaedAbdullah@ieee.org

No activity is reported for this calendar year.

## 15) Teacher in Service Program (TISP) Committee

Chair: Wolfram Lunscher, wlunscher@gmail.com

Total Number of T	echnical Meetings:
This Year (2020):	7
Last Year (2019):	12

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
Nov 16, 2019 Ottawa	Workshop	TISP STEM Workshop	1 IEEE 50 Total	Ottawa Children's Korean School
Nov 19, 2019 Ottawa	Workshop	TISP STEM Workshop	1 IEEE 10 Total	Christie Lake Kids
Nov 26, 2019 Ottawa	Workshop	TISP STEM Workshop	1 IEEE 10 Total	Christie Lake Kids
Oct 20, 2020 Ottawa	Workshop	TISP STEM Workshop	2 IEEE 10 Total	Christie Lake Kids
Oct 27, 2020 Ottawa	Workshop	TISP STEM Workshop	2 IEEE 10 Total	Christie Lake Kids
Nov 3, 2020 Ottawa	Workshop	TISP STEM Workshop	2 IEEE 10 Total	Christie Lake Kids
Nov 10, 2020 Ottawa	Workshop	TISP STEM Workshop	2 IEEE 10 Total	Christie Lake Kids

## 3. Chapter reports

## 1) AESS – Aerospace and Electronics Systems Society

Chair: Sreeraman Rajan, sreeraman@ieee.org

#### **List of Activities**

Total Number of Technical Meetings:

This Year (2020): 2 Last Year (2019): 1

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
18 <sup>th</sup> Nov 2019	Tech Meeting	Compressive Super-Pixel LiDAR for High-Framerate 3D Depth Imaging, Speaker: Andreas Aßmann, PhD student at Heriot- Watt University and STMicroelectronics , Edinburgh, Scotland	IEEE 5 Guests: 20	No
28 Oct 2020	Tech Meeting	Topic: Sensor Fusion for Autonomous Systems Speaker: Prof. M. Atia, Carleton University		
TBD (early Nov 2020)	Tech Meeting	Topic: TBD  Speaker: Prof. M. Amini, Carleton University		

#### List of special or unique events that are to be held next year

- We had planned to hold DL lecture tour which got cancelled due to COVID. We will try to arrange for DL virtual lecture week for Ottawa Chapter next year. Also we were trying to having a summer school which also fizzled out due to COVID. We will hold on to this idea till we get a vaccine for COVID.
- 2) AP/MTT Joint Chapter of Antennas and Propagation Society Microwave Theory & Techniques Society

Chair: Marwen Ben Rejeb, marwen.benrejeb@ieee.org

Vice Chair: Ramzi Darraji, <u>rdarraji@ieee.org</u>
Secretary: Ahmed Abdellatif, <u>aabdella@ieee.org</u>
Treasurer: Anis Ben Arfi, <u>anis.b.a@ieee.org</u>

#### **List of Activities**

Total Number of Technical Meetings:				
This Year (2020):5 events				
Last Year (2019): No events				

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
Online; 10/07/2020; 2:30pm	Tech Meeting	ACCELERATING 5G DESIGN INNOVATION THROUGH SIMULATION	22/40	
Online; 06/08/2020; 3pm	Tech Meeting	ORGANIC ANTENNA-IN-PACKAGE DESIGNS FOR MILLIMETER WAVE APPLICATIONS	29/35	
Online; 02/09/2020; 11am	Tech Meeting	CHARACTERIZATION AND MODELING OF GAN HEMT TRAPPING EFFECTS FOR MICROWAVE CIRCUIT DESIGN	18/19	EMC Chapter
Online; 16/09/2020; 5pm	Tech Meeting	OPPORTUNITIES, CHALLENGES AND IMPLEMENTATION OF SILICON INTEGRATION AND PACKAGING IN MMWAVE RADAR AND COMMUNICATION APPLICATIONS	7/14	EMC CPMT/ED/ CAS/SSCS Chapters
Online; 02/10/2020; 3pm	Tech Meeting	SAR AND TEMPERATURE RISE IN A HUMAN HEAD DUE TO EM RADIATION	10/11	

## 3) CI/SMC - Joint Chapter of Computational Intelligence and Systems, Man and Cybernetics Society

Chair: Rafael Falcon, rfalcon@ieee.org

Vice Chair: Julio Valdes, Julio. Valdes@nrc-cnrc.gc.ca

Website: http://ieeeottawa.ca/ci/

No activity is reported for this calendar year.

### 4) CS – Computer Society

Chair: Michael Lalonde michael.lalonde@ieee.org

Website: http://sites.ieee.org/ottawa-cs/

No activity is reported for this calendar year.

## 5) ComSoc/BTS/CTS - Joint Chapter of Communications Society, Broadcast Technology Society and Consumer Technology Society

Chair: Wahab Almuhtadi, almuhtadi@ieee.org

Vice Chair: Claude Brule, <a href="mailto:brulec@algonquincollege.com">brulec@algonquincollege.com</a>
Secretary: Raed Abdullah, <a href="mailto:RaedAbdullah@ieee.org">RaedAbdullah@ieee.org</a>

Membership Development: Tony Khoury, tkhoury@ieee.org

Website: http://www.ieeeottawa.ca/comsoc/

#### **List of Activities**

Total Number of T	echnical Meetings:
This Year (2020):	99
Last Year (2019):	8

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
November, 2019 11:30 am - 01:30 pm Marshes Golf Club, 320 Terry Fox Drive, Kanata, Ottawa, ON Canada	Tech Meeting	The Future of 5G, Edge Computing and Digital Transformation. Speaker: Akshay Sharma, Tech analyst, ex-Gartner		IEEE Ottawa Section ComSoc/ CTSoc/BTS, and IEEE Ottawa Lunch and Learn
February 19, 2020.  11:30 am - 1:30 pm  CENGN-,Centre of Excellence in Next Generation Networks, Ottawa, ON, Canada	Tech Meeting	The Journey to 5G  Speaker: Dr. Ibrahim Gedeon, CTO, TELUS	36/80	IEEE Ottawa Section ComSoc/ CTSoc/BTS, and IEEE Ottawa Lunch and Learn
March 19, 202	Tech Meeting	Drone-assisted Mobile Edge		IEEE Ottawa

6:00 pm 7:30 pm  Ciena Optophotonics Lab (room T129), Algonquin College, Ottawa, Ontario, Canada		Computing  Speaker: Nirwan Ansari, Distinguished Professor of Electrical and Computer Engineering at the New Jersey Institute of Technology (NJIT)		ComSoc/CTSoc/BTS, IMS, RS/PELS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
June 18, 2020. 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	Microgrid Stability Definitions, Analysis, and Modeling Speaker: Dr. Mostafa Farrokhabadi, Director of Technology at BluWave-ai, Ottawa	76/57	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
July 9, 2020 6:00 pm 7:30 pm Ciena Optophotonics Lab (room T129), Algonquin College, Ottawa, Ontario, Canada	Tech Meeting	Josephson Arbitrary Waveform Synthesizer as a Quantum Standard of Voltage and Current Harmonics Speaker: Dr. Dimitrios Georgakopoulos, Senior Research Scientist, National Measurement Institute, Sydney, Australia	39/30	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
July 9, 2020 12:00 pm -1:00 pm Virtual – Zoom	Tech Meeting	Integrated Access and Backhaul for 5G and Beyond Speaker: Dr. Behrooz Makki, a Senior Researcher in Ericsson Research, Gothenburg, Sweden		IEEE ComSoc Toronto Chapter, IEEE ComSoc Montreal Chapter, and ComSoc/CTSoc/BTS Ottawa Joint Chapter
July 28, 2020 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	Role of the Smart Grid in Facilitating the Integration of Renewables  Speaker: Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA	60/45	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch

July 30, 2020 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	Measurement, Control and Protection in Smart Grid Energy Management Systems for Smart Buildings in a Smart City  Speaker: Prof. Saifur Rahman Director of the Advanced Research Institute and Joseph R. Loring Professor of Electrical and Computer Engineering at Virginia Tech, USA.	30/10	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
August 12, 2020 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	The Smart City Building Blocks & Their Synergy with Smart Villages  Speaker: Prof. Saifur Rahman Director of the Advanced Research Institute and Joseph R. Loring Professor of Electrical and Computer Engineering at Virginia Tech, USA.	11/9	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch

#### **Awards and Recognitions**

- On Sat. October 26, 2019, IEEE Communications Society has announced that IEEE Ottawa ComSoc/CESoc/BTS Joint Chapter is the final winner of the Communications Society's 2019 CHAPTER-OF-THE-YEAR (2019 CoY). This is a big achievement and ComSoc Ottawa Chapter applauded the accomplishments that led to the chapter to be chosen from among all our ComSoc chapters worldwide. ComSoc Ottawa Chapter will be honored in two ways at GLOBECOM (December 9-10, 2013) in Waikoloa, HI, USA: the Chapter will receive the 2019 CoY plaque, and 2019 CAA plaque. The ComSoc Society invited the Chapter Chair or representative to attend the Awards Ceremony at IEEE GLOBECOM (December 10, 2019) in Waikoloa, and receive these two Awards. This is the 2nd time Ottawa Chapter is the winner of the CoY (first, it was in 2016, and now in 2019).
- On Thu. October 3, 2019, IEEE Communications Society has announced that IEEE Ottawa ComSoc/BTS/CESoc Joint Chapter is the winner of the 2019 Communications Society Chapter Achievement Award (2019 CAA) in North America Region (R1-R7). The Chapter of the Year 2019 winner will be selected from the 4 winners from North America Region (R1-R7), Europe, Middle-East, & Africa Region 8, Latin America Region (R9), and Asia/Pacific Region (R10). This is the 3rd time Ottawa Chapter is the winner of the CAA (first, it was in 2010, second it was in 2016, and now in 2019).

#### List of special or unique events that are to be held next year

IEEE Ottawa Communications Society (ComSoc), Consumer Technology Society (CTSoc), and Broadcast Technology Society (BTS) Joint Chapter along with IEEE Ottawa Section and IEEE Montreal Section are hosting and organizing the IEEE International Conference on Communications 2021 (ICC 2021) that is to be held in Montreal at the Palais des congrès de Montréal (Montreal Convention Centre) on June 14-June 18, 2021. For more information visit: https://icc2021.ieee-icc.org/

## 6) CPMT - Components, Packaging and Manufacturing Technology Society

Chair: Qijun Zhang, <a href="mailto:qijun.zhang@carleton.ca">qijun.zhang@carleton.ca</a>

Activity Date, Time, Location	Activity Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.) and Brief Description	Title/Speaker or Workshop Name	Attendance IEEE/Total	Joint Activity Sponsors
5:00-6:00pm, Thursday July 23, 2020	Technical Meeting, Distinguished Lecture Presentation	"High-Speed Signal Integrity Challenges and Opportunities for Next Generation Technologies " by Dr. Bhyrav Mutnury, DELL EMC, Austin TX	8/20	EMC, CPMT/ED/CAS/SSCS
5:00-6:00pm, Wednesday September 16, 2020	Technical Meeting, Distinguished Lecture Presentation	"Opportunities, Challenges and Implementation of Silicon Integration and Packaging in mmWave Radar and Communication Applications", by Dr. Xiaoxiong Gu, IBM T.J. Watson Research Center, NY	7/14	EMC, CPMT/ ED/CAS/SSCS/AP/MTT

## 7) DEIS - Joint Ottawa-Montreal Chapter of Dielectrics and Electrical Insulation Society

Chair: Refat Ghunem, Refat.Ghunem@nrc-cnrc.gc.ca

No activity is reported for this calendar year.

## 8) EDS/CAS/SSCS - Joint Chapter of Electron Devices Society, Circuits and Systems Society, and Solid-State Circuits Society

Chair: Ram Achar, <a href="mailto:achar@doe.carleton.ca">achar@doe.carleton.ca</a>
Vice Chair: Ihsan Erdin, <a href="mailto:erdinih@gmail.com">erdinih@gmail.com</a>

#### **List of Activities**

Total Number of Technical Meetings:
This Year (2020): \_\_\_\_\_0\_\_
Last Year (2019): \_\_\_\_\_6\_\_

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
Sept. 16, 2020 Virtual	Technical	Opportunities, Challenges and Implementation of Silicon Integration and Packaging in mmWave Radar and Communication Applications  Speaker: Dr. Xiaoxiong Gu, IBM T. J. Watson Research Center, NY	7/14	EMC Society
Oct. 6, 2020 Virtual	Technical	High-Speed Signal Integrity Challenges and Opportunities for Next Generation Technologies  Speaker: Dr. Bhyrav Mutnury  Senior Distinguished Engineer and Global Team Lead at Enterprise Signal Integrity group at Dell EMC in Austin, Texas		EMC Society
Oct. 6, 2020 Virtual	Technical	HPEM Threats, Modeling and Analysis for RF Devices/Circuits Breakdown under Intentional Electromagnetic Interference (IEMI)  Speaker: Prof. Liang Zhou, Shanghai Jiao Tong University		EMC Society

Oct. 16, 2020 Virtual	Technical, EDS DL	Reliability and Instability of GaN Power Field-Effect Transistors  Speaker: Dr. Jesus del Alamo,	EDS Society - Region 1
Oct. 22, 2020 Virtual	Technical, CASS DL	Designing Analog Functions Without Analog Circuits  Speaker: Prof. Geoges Gielen, Katholieke University, Luven, Belgium	
Nov. 9, 2020 Virtual	Technical, SSCS DL	Adaptive and Resilient Circuits for Processors  Speaker: Dr. Keith Bowman,	Illinois SSCS Chapter

## 9) EMC - Electromagnetic Compatibility Society

Chair: Syed Bokhari, bokhari@ieee.org

Vice Chair: Qiubo Ye, <a href="mailto:qiubo.ye.1997@ieee.org">qiubo.ye.1997@ieee.org</a>
Website: <a href="http://www.ieeeottawa.ca/emcs/">http://www.ieeeottawa.ca/emcs/</a>

#### **List of Activities**

Total Number of Technical Meetings:
This Year (2020): \_\_\_\_2
Last Year (2019): \_\_\_\_2

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
July 23, 2020, 5-6PM, Online via Zoom	Dr. Bhyrav Mutnury, DL EMC Society	High-Speed Signal Integrity Challenges and Opportunities for Next Generation Technologies	8 IEEE members 20 Total	AP/MTT, CES/SSCS/CAS, CPMT

September 16, 2020, Online via Zoom	Dr. Xiaoxiong Gu, DL, EMC Society	Opportunities, Challenges and Implementation of	7 IEEE Members	AP/MTT, CES/SSCS/CAS, CPMT
		Silicon	Total = 24	
		Integration and Packaging in mmWave Radar and Communication		
		Applications		

## 10) EMBS - Engineering in Medicine and Biology Society

Chair: Sreeraman Rajan, sreeraman@ieee.org

Vice Chair: Mohamed Abdelaziz

Secretary: Yuu Ono, yuuono@sce.carleton.ca

Website: www.ieeeotawa.ca/embs

#### **List of Activities**

Total Number of Technical Meetings: This Year (2020): 2\_\_\_\_\_ Last Year (2019): 7\_\_\_\_\_

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
20 Nov 2019 06:00 PM, Carleton University	Tech Meeting	Extracting Medical Concepts from Biomedical Articles Using Deep Learning	IEEE: 11 Guest: 29	NA
27 Nov 2019 06:00 PM, Carleton University	Tech Meeting	Computerized Image Analysis	IEEE: 8 Guest: 12	NA
29 Jan 2020 06:00 PM, Carleton	Panel	Graduate Studies Panel	IEEE: 6 Guest: 4	NA

University				
30 Jan 2020 06:00 PM, Carleton University	Tech Meeting	3D-Bioprinting: how is it helping us understand collagen remodelling?	IEEE: 5 Guest: 19	NA
04 Feb 2020 06:00 PM, Carleton University	Seminar	Industry Seminar - Phreesia	IEEE: 5 Guest: 15	NA
12 Feb 2020 06:00 PM, Carleton University	Tech Meeting	Assistive Technologies for Healthcare	IEEE: 5 Guest: 21	NA
08 Sep 2020 03:30 PM, Carleton University	Tech Meeting	IEEE EMBS: Combining tools to understand collagen remodeling	IEEE: 2 Guest: 12	NA
24 Sep 2020 02:30 PM, Carleton University	Tech Meeting	IEEE EMBS - Gradual Saliency Detection in Video Sequences Using Bottom-up Attributes	IEEE: 7 Guest: 38	NA
01 Oct 2020 02:30 PM, Carleton University	Tech Meeting	Deep Learning Methods for Computed Tomography and Magnetic Resonance Images	IEEE: 15 Guest: 57	NA

## **Awards and Recognitions**

 The Carleton University EMB student club was awarded both global and regional best club awards by EMBS for the year 2019.

### List of special or unique events that are to be held next year

We are planning to invite EMB DLs to give lectures to the chapter.

## 11) IMS - Instrumentation and Measurement Society

Chair: Voicu Groza, vgroza@uottawa.ca

Vice Chair: Branislav Djokic, branislav@ieee.org

Website: http://www.ieeeottawa.ca/ims/

### **List of Activities**

Total Number of To	echnical Meetings:
This Year (2020): _	4
Last Year (2019): ]	3

Date, Time, Location	Туре	Title and Brief Description	Attendanc e (IEEE / Total)	Joint Activity Sponsors
July 30, 2020, 6:30 – 7:30 p.m., Webinar	Tech Meeting online	Measurement, Control and Protection in Smart Grid Energy Management Systems for Smart Buildings in a Smart City Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA  Abstract: Smart grid is a modern electric system with its architecture, communications, sensors, measurements, automation, computing hardware and software for improvement of the efficiency, reliability, flexibility and security. In particular, the smart grid, when fully deployed, will facilitate the (i) increased use of digital information and measurement, control & protection technologies, (ii) deployment and grid-integration of distributed energy resources (DERs), (iii) operation of demand response and energy efficiency programs, and (iv) integration of consumer-owned smart devices and technologies. Different non-linear controls, such as back-stepping control, feedback linearization, model predictive control, and sliding mode control are applied to control DERs, and their grid integration. Another control technique gaining application in the smart grid space is based on multi-agent systems (MAS) which provide autonomy, reactivity and proactivity. As speedy communication facilities, such as fiber-optics, microwave, GSM/GPRS, 4G/5G are becoming the integral parts of the functioning smart grid, the integration of MAS in smart grid applications is becoming simple and feasible. This lecture focuses on the measurement & control issues of the smart grid and how MAS can provide an efficient tool to address such issues. In addition, an overview of the related challenges and opportunities for energy efficient building operation and management with deployment experience in		PES, RS/ PELS, ComSoc / CESoc / BTS, EA

		<u> </u>		
		the US will be provided.		
Thursda y, July 09, 2020 6:30 – 7:30 p.m	Tech Meeting online	Josephson Arbitrary Waveform Synthesizer as a Quantum Standard of Voltage and Current Harmonics Dr. Dimitrios Georgakopoulos, National Measurement Institute, Australia Abstract - Josephson arbitrary waveform synthesizers (JAWS) are becoming a viable technology for national metrology institutes and industry to establish quantum standards of direct and alternating voltage. At the National Measurement Institute of Australia (NMIA) we have extended the application of the JAWS to provide a standard of both the magnitude and the phase of harmonics in a distorted waveform. Harmonic analysis is critical in a number of industrial applications such as electric power systems, power electronics, characterization of systems and materials and acoustics and vibration. At present, in the calibrations of power analyzers, the traceability of the magnitude of the harmonics is based on ac-dc transfer measurements. However, there is a gap in the traceability of the phase of the harmonics relative to the fundamental. The NMIA calibration system uses a JAWS chip from the National Institute of Standards and Technology (NIST), USA, a precision inductive voltage divider and a set of current shunts designed and manufactured by NMIA. For distorted waveforms with harmonic magnitudes from 5% to 40% of the fundamental, the calibration system can measure odd harmonics up to the 39th with magnitude uncertainties better than 0.001 % of the fundamental for voltage (from 0.01 V to 240 V) and current (from 0.005 A to 20 A) waveforms. The best phase uncertainties range from 0.001° to 0.010° (k = 2.0), depending on the harmonic number and harmonic magnitude. We anticipate that the ability of the JAWS to generate distorted waveforms with the lowest possible uncertainty in the magnitude, and phase spectra will make it a unique tool for low-frequency spectrum analysis.		PES, RS/ PELS, ComSoc/ CESoc/ BTS, EA
Thursda yJune 18, 2020, 6:30 – 7:30 p.m.	Tech Meeting online	Microgrid Stability Definitions, Analysis, and Modeling Dr. Mostafa Farrokhabadi, Director of Technology, BluWave-ai, Ottawa. Abstract: This seminar discussed the findings of the award-winning IEEE PES Task Force on Microgrid Stability Definitions, Analysis, and Modeling, which defines concepts and identifies relevant issues related to stability in microgrids. The seminar presented definitions and classification of microgrid stability, considering pertinent microgrid features such as voltage-frequency dependence, unbalancing, low inertia, and generation intermittency. A few examples were also presented, highlighting some of the stability classes discussed during the seminar	10/21	CH07103 - Ottawa Section Chapter, PE31

12 Nov 2019, 02:00 PM - 03:00 PM, National Researc	Tech Meeting	5G for Smart Everything: from Smart Meters to the New Power Grid. What Is Needed to Get There? / Akshay Sharma, San Diego, CA  Abstract: This talk discussed how 5G with Edge Computing, and Ultra-low latency (sub-5ms) with Gigabit speed bandwidth will be a game changer with Smart Meters and a new Electric Grid can be enabled with Smart Lamposts. As we transition to DevOps, AlOps, newer Closed Loop	7/26	CH07103 - Ottawa Section Chapter, PE31
h Council, Ottawa, Ontario		Automation systems will occur. As we connect Al-powered Virtual Personal Assistants to IoT devices in the home, now we have to imagine the entire macro-infrastructures being all hyper-connected. What is needed to get there was discussed at the seminar.		

## 12) PHO – Photonics Society

Chair: Karin Hinzer, <a href="mailto:khinzer@uottawa.ca">khinzer@uottawa.ca</a>

Vice Chair: Winnie Ye, winnie.ye@carleton.ca

Treasurer: John Bernard john.Bernard@nrc-cnrc.gc.ca

Past Chair: Kexing Liu kexing.liu@ieee.org

Senior Past Chair: John Alcock john.Alcock@nrc-cnrc.gc.ca

Website: http://www.ieeeottawa.ca/leos/

#### **List of Activities**

Total Number of T	echnical Meetings:
This Year (2020):	2
Last Year (2019):	1

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
December 3, 2019, 1 p.m., University of Ottawa, Advanced Research Complex, room 233, 25 Templeton	IEEE Photonics Society Distinguished Lecturer Program	Advanced semiconductor lasers:  Ultra-low operating energy and heterogeneous integration with Si photonics devices, a seminar by Shinji Matsuo, NTT Photonics Laboratories,	10 IEEE members, 25 total	NSERC CREATE TOP-SET and University of Ottawa

		Japan		
July 21, 2020, noon	IEEE Ottawa Webinar Series on AI and Machine Learning	Quantum Photonics Processors to Accelerate Machine Learning, a seminar by Jacques Carolan of University of Copenhagen, Denmark (online)	12 IEEE members, 16 total	CS Chapter, ComSoc Chapter, TEMS Chapter, and SP Chapter, jointly with Vitesse- Reskilling
August 12, 2020	IEEE Ottawa Webinar Series on AI and Machine Learning	Photonics: a great testing-ground to develop new AI algorithms for science, a seminar by Marin Soljacic of MIT	8 IEEE members, 13 total	CS Chapter, ComSoc Chapter, TEMS Chapter, and SP Chapter, jointly with Vitesse- Reskilling

A seminar by Brian Cunningham, in the IEEE Photonics Society Distinguished Lecturer Series, planned for March 24, 2020, was cancelled due to the pandemic.

#### **Awards and Recognitions**

2019 IEEE Ottawa Photonics Student Best Paper Award, first place: Alan T. K. Godfrey, for the paper entitled "Femtosecond-laser-induced blister formation on polymer thin films" presented at the 2019 Photonic North Conference in Québec City.

2019 IEEE Ottawa Photonics Student Best Paper Award, second place: Md Saad-Bin-Alam, for the paper entitled "Multi-resonant high-Q plasmonic metasurface" presented at the 2019 Photonic North Conference in Québec City.

List of notable events held, sponsored or organized such as symposia, conferences, educational programs, job fairs, competitions etc.

Photonics North Conference, online, May 26-28, 2020.

## 13) PES - Power and Energy Society

Chair: Ajit Pardasani, ajit.pardasani@ieee.org
Vice Chair: Branislav Djokic, branislav@ieee.org

Secretary: Shamsodin Taheri <a href="mailto:shamsodin.taheri@gmail.com">shamsodin.taheri@gmail.com</a>

Treasurer: Raed Abdullah, <u>raedabdullah@ieee.org</u>
Past Chair: Wahab Almuhtadi <u>almuhtadi@ieee.org</u>

Total Number of Technical Meetings: This Year (2020): 7
Last Year (2019): 7

Activity Date, Time, Location	Activity Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.) and Brief Description	Title/Speaker or Workshop Name	Attendance Total/IEEE/	Joint Activity Sponsors
Aug. 12, 2020, 6:30 PM – 7:30 PM	Tech Meeting (Webinar	The Smart City Building Blocks & Their Synergy with Smart Villages Speaker: Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA	11/9	IEEE Ottawa Section PES, IMS, RS-PELS and ComSoc/CESoc/BTS Chapters, and Educational Activities.
July 30, 2020, 6:30 PM. – 7:30 PM	Tech Meeting (Webinar)	Measurement, Control and Protection in Smart Grid Energy Management Systems for Smart Buildings in a Smart City Speaker: Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA	30/10	IEEE Ottawa Section IMS, PES, RS-PELS, and ComSoc/CESoc/BTS Chapters, and Educational Activities.
July 28, 2020, 6:30 PM. – 7:30 PM	Tech Meeting (Webinar)	Role of the Smart Grid in Facilitating the Integration of Renewables Speaker: Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA	60/45	IEEE Ottawa Section PES, IMS, RS-PELS and ComSoc/CESoc/BTS Chapters, and Educational Activities.
09 July 2020 06:30 PM to 07:30 PM	Tech Meeting (Webinar)	Josephson Arbitrary Waveform Synthesizer as a Quantum Standard of Voltage and Current Harmonics Speaker: Dr. Dimitrios Georgakopoulos, Senior Research Scientist, National Measurement Institute, Sydney, Australia	39/30	IEEE Ottawa Section PES, IMS, RRS/PELS and ComSoc/CESoc/BTS Chapters, and Educational Activities
18 Jun 2020 06:30 PM to 07:30 PM	Tech Meeting (Webinar)	Microgrid Stability Definitions, Analysis, and Modeling	76/57	IEEE Ottawa Section PES, IMS, RRS/PELS and ComSoc/CESoc/BTS

		Speaker: Dr. Mostafa Farrokhabadi of BlueWave ai, Ottawa		Chapters, and Educational Activities
07 Jul 2020 06:00 PM to 07:30 PM	Tech Meeting (Webinar)	A novel Maximum Power Point Tracking (MPPT) technique for photovoltaic (PV) solar panels Speaker: Mr. Mahdi Tude Ranjbar	17/10	Ottawa Section Jt. Chapter, RL07/PEL35 Co-sponsored by IEEE Ottawa Section PES Chapter
12 Nov 2019 02:00 PM to 03:00 PM	Tech Meeting	5G for Smart Everything: From Smart Meters to the New Power Grid. What is needed to get there? Speaker: Mr. Akshay Sharma		IEEE Ottawa PES and IMS Chapters and Educational Activities, in conjunction with NRC Electrical Power Measurements.

#### Awards and Recognition

IEEE Ottawa PES Chapter Outstanding Engineer Award for 2020 was given out to Mr. Casey Malone of Hydro Ottawa

## 14) RAS/CSS - Joint Chapter of Robotics & Automation, and Control Systems Societies

Chair: Jurek Sasiadek, jurek.sasiadek@carleton.ca

Vice Chair: Marek Zaremba marek.Zaremba@uqo.ca

Meeting No 1

1. Speaker: Mike Blois

2. Topic: "Interpolation of Experimental Error Statistics for Mission Design of GPS Partial Attitude Determination "

3. Date: January, 10, 2020

#### Meeting No 2

1. Speaker: Fabian Aquilar

2. Topic: "Sparse Stereo Visual Odometry with Local Non-Linear Least-Squares Optimization for Navigation of Autonomous Vehicles"

3. Date February 14, 2020

## 15) R/PEL - Reliability Society & Power Electronics Society Joint Ottawa Chapter (R-PEL)

Chair: Raed Abdullah (raedabdullah@ieee.org)

Vice Chair: Tanya Gacjhovska (tgachovska@yahoo.com)

No activity is reported for this calendar year.

## 16) SP/OE/GRS - Joint Chapter of Signal Processing, Oceanic Engineering, and Geoscience and Remote Sensing

Chair: Yifeng Zhou, <a href="mailto:vifeng.zhou@outlook.com">vifeng.zhou@outlook.com</a>
Website: <a href="mailto:http://www.ieeeottawa.ca/grsoesp/">http://www.ieeeottawa.ca/grsoesp/</a>

Total Number of Technical Meetings:

This Year: 2 Last Year: 2

Activity Date, Time, Location	Activity Type (Tech Meeting, Workshop, DL, etc) and Brief Description	Title/Speaker or Workshop Name	Attendance IEEE/Total	Joint Activity Sponsors
Aug. 12, 2020/Online Webinar	Technical seminar Dr. Marin Soljacic, MIT of MIT	Photonics: a great testing-ground to develop new AI algorithms for science		IEEE OTTAWA PHO CHAPTER, CS CHAPTER, COMSOC CHAPTER, TEMS CHAPTER, JOINTLY WITH VITESSE- RESKILLING
Jul. 21, 2020/Online Webinar	Technical seminar by Dr. Jacques Carolan of University of Copenhagen, Danmark	Quantum Photonics Processors to Accelerate Machine Learning	10/20	IEEE OTTAWA PHO CHAPTER, CS CHAPTER, COMSOC CHAPTER, TEMS CHAPTER, JOINTLY WITH VITESSE- RESKILLING

## 17) VTS - Vehicular Technology Society

Chair: Richard Yu, Richard.yu@carleton.ca

#### **List of Activities**

Total Number of Technical Meetings: This Year (2020): \_\_2\_\_\_ Last Year (2019): \_\_3\_\_\_

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
-------------------------	--	--------------------------------	---	----------------------------

Sept. 22, 2020 On-line	Seminar	From the Internet of Information to the Internet of Intelligence	50/87	The 32nd International Teletraffic Congress (ITC 2020)
Aug. 13, 2020 On-line	Seminar	Green Internet of Intelligence Enabled by Blockchain	231/420	IEEE Technical Committee on Green Communications and Computing

## 4. Affinity Reports

### 1) AICN - Alliance of IEEE Consultant Network

Chair: Bhagvat Joshi, bjoshi@ieee.org

Vice Chair: Mike Bourassa, michael.bourassa@ieee.org

Website: http://www.ieeeottawa.ca/aicn/about/

#### **List of Activities**

Total Number of Technical Meetings:
This Year (2020):0
Last Year (2019):1

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
20 Feb 2020, 7:30 PM, RA Centre, Ottawa	Tech Meeting	Not Your Grandmother's Marketing – A Tech Talk On How Technology Has Impacted Marketing	14/23	IET/PEO

#### List of special or unique events that are to be held next year

Planning events on starting own consulting business and tax implications for consultants. This will be particularly relevant following the expected impact of Covid-19 on the economy and employment.

## 2) YP - Young Professionals

Chair: Mohamed Emara, emara@ieee.org

Vice Chair: Joseph Botros, joseph.botros@carleton.ca

**Treasurer**: Ahmed Ashoor, <a href="mailto:ahmedashoor@cunet.carleton.ca">ahmedashoor@cunet.carleton.ca</a> **Secretary:** Ville Tiukuvaara, <a href="mailto:villetiukuvaara@cmail.carleton.ca">villetiukuvaara@cmail.carleton.ca</a>

Website: http://site.ieee.org/ottawa-yp/

#### **List of Activities**

Total Number of T	echnical Meetings:
This Year (2020):	7
Last Year (2019):	2
,	

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
15 November 2019, 6 PM, Carleton University	Technical Meeting	Monthly team meeting	5 (5 IEEE members)	N/A
18 November 2019, 6 PM, Carleton University	Workshop	Introduction to LaTeX	9 (4 IEEE members)	N/A
24 November 2019, 6 PM, 2019, Carleton University	Seminar	Antennas & Metasurfaces for 5G	13 (6 IEEE members)	Carleton University Student Chapter
27 November 2019, 6 PM, Carleton University	Workshop	Introduction to Amateur Radio Certification	17 (10 IEEE members)	Radio Amateurs of Canada
27 November 2019, 12 PM, Carleton University	Seminar	Reversible Logic: A Game Changing Communication Protocol for Connecting a Massive Number of IoT	16 (6 IEEE members)	Women in Engineering & Carleton University Systems Department (IoT lab)
28 November 2019, 1 PM, Carleton University	Seminar	GNSS Antennas for Autonomous Vehicles	7 (2 IEEE members)	Tallysman Wireless Inc.
4 December 2019, 12 PM, Carleton University	Lunch & Learn	Lunch & Learn with Mike Lalonde	16 (11 IEEE members)	Purocolo
10 December 2019, 6 PM, Carleton	Technical Meeting	Monthly team meeting	10 (8 IEEE members)	N/A

University				
10 December 2019, 7 PM, Carleton University	Networking Event	Peer Networking and Collaboration	5 (5 IEEE members)	N/A
13 December 2019, 12 PM, Carleton University	Seminar	Rectangular Waveguides for Radar and 5G Radio Systems	9 (7 IEEE members)	Carleton University Department of Electronics
14 January 2020, 6 PM, Carleton University	Technical Meeting	Monthly team meeting	8 (7 IEEE members)	N/A
31 January 2020, 2 PM, Carleton University	Workshop	Introduction to HFSS	12 (2 IEEE members)	Carleton University Department of Electronics and Ansys, Inc.
11 February 2020, 6 PM, Carleton University	Technical Meeting	Monthly team meeting	8 (7 IEEE members)	N/A
19 February 2020, 6 PM, Carleton University	Seminar	Leaky-Wave Antennas	7 (4 IEEE members)	Carleton University Department of Electronics
5 March 2020, 12 PM, University of Ottawa	Workshop	Self-Management	10 (5 IEEE members)	Scott Rust
10 March 2020, 6 PM, Carleton University	Technical Meeting	Monthly team meeting	7 (7 IEEE members)	N/A
14 April 2020, 6 PM, Online	Technical Meeting	Monthly team meeting	7 (7 IEEE members)	N/A
26 May 2020, 12 PM, Online	Seminar	Professional Engineering	~42 (unknown number of IEEE	Professional Engineers Ontario

Event		License in Ontario	members)	& Women in Engineering
9 June 2020, 6 PM, Online	Technical Meeting	Monthly team meeting	7 (7 IEEE members)	N/A
3 July 2020, 6 PM, Online	Technical Meeting	Monthly team meeting	7 (7 IEEE members)	N/A
11 August 2020, 6 PM, Online	Technical Meeting	Monthly team meeting	7 (7 IEEE members)	N/A
2 September 2020, 11 AM, Online	Seminar	Characterization and Modeling of GaN HEMT Trapping Effects for Microwave Design Circuits	~20 (unknown number of IEEE members)	IEEE Ottawa AP/MTT Society

#### **Awards and Recognitions**

- IEEE Ottawa 2019 Outstanding Affinity Group Award
- IEEE Canada 2019 Young Professional Affinity Group of the Year Award
- IEEE 2020 Young Professionals Hall of Fame Award

## List of notable events held, sponsored or organized such as symposia, conferences, educational programs, job fairs, competitions etc.

One of the most notable events we held was the Professional Engineers Ontario License Talk. We
hosted representatives from Professional Engineers Ontario (PEO) to give a talk about the steps
needed to become a licensed Professional Engineer in Ontario. This talk has attracted over 40
attendees and was well-received by the Young Professionals community in Ontario.

#### List of special or unique events that are to be held next year

- **Seminar**: Antenna Array (September 2020)
- Workshop: Introduction to Mathematica (October 2020)
- Workshop: Optimization Algorithms in MATLAB (October 2020)
- Workshop: MATLAB Data Plotting Techniques (November 2020)
- Workshop: Time-management (November 2020)
- Seminar: Wireless Power Transfer & Power Harvesting for IoT (December 2020)
- **Seminar**: Pertaining to Sustainable Entrepreneurship Seminar (December 2020)

## 3) WiE - Women in Engineering

Chair: Anastassia Gharib, anastassiagharib@ieee.org

Vice Chair: Manar Helal, manarhelal@ieee.org

**Secretary**: Dana Haj Hussein, <u>dana.hajhussein@ieee.org</u> **Treasurer**: Fadwa Darwaish, <u>fadwadarwaish@ieee.org</u>

Website: <a href="http://www.ieeeottawa.ca/wie/">http://www.ieeeottawa.ca/wie/</a>

### **List of Activities**

Total Number of T	echnical Meetings: This
Year (2020):	44
Last Year (2019):	23

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
Date: 15 Jan 2020 Time: From 12:00 PM to 1:00 PM Carleton University	Social	Promoting Male Allyship in STEM Panel discussion by Carleton University	30/100	Organized by Carleton University
Date: 16 Jan 2020 Time: From 6:00 PM to 8:00 PM Carleton University	Workshop	IEEE WIE CARLETON AND OTTAWA SECTION: Interview and Networking Workshop	20/30	Joint with IEEE WIE Carleton Chapter
Date: 16 Jan 2020 Time: From 12:30 PM to 1:30 PM Carleton University	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	12/12	
Date: 23 Jan 2020 Time: From 6:00 PM to 9:30 PM Sala San Marco Event & Conference Centre	Conference	IEEE WIE OTTAWA: Bronze Patron in the IEEE SPAC 2020 Conference Ottawa	70/300	Organized by IEEE Student Branches
Date: 25 Jan 2020 Time: From 6:00 PM to 9:30 PM Location: Carleton University	Tech Event	IEEE WIE OTTAWA: Booth in the Go Code Girl Expo	5/50	Organized by Virtual Ventures

Date: 25 Jan 2020 Time: From 9:30 AM to 3:00 PM Location: Carleton University	Symposium	IEEE WIE OTTAWA: Booth in the Carleton University's Green Energy Symposium (CUGES)	4/48	Organized by CUGES
Date: 8 Feb 2020 Time: From 9:30 AM to 2:00 PM Location: Carleton University	Tech Event	IEEE WIE OTTAWA's booth at Rev Up: An Interactive Day of Insight and Inspiration for Women Identified Prospective Engineering and IT Students	5/50	Organized by Carleton University and involved many other technical societies
Date: 2 Feb 2020 Time: From 12:30 PM to 2:30 PM Carleton University	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	8/8	
Date: 20 Feb 2020 Time: From 6:00 PM to 8 PM 150 Elgin St	Tech Meeting	IEEE WIE Ottawa Meeting with Techsploration Inaugural Ottawa Launch at Shopify	25/50	Organized by Techsploration
Date: 2 March 2020 Time: From 8:00 AM to 6:30 PM Brookstreet Hotel 525 Legget Drive, Kanata	Conference	IEEE WIE OTTAWA: Booth at Women in Data Science Conference 2020- WIDS@OTTAWA	50/450	Organized by WIDS Ottawa Chapter
Date: 3 March 2020 Time: From 12:00 PM to 4:00 PM uOttawa	Tech Event	IEEE WIE Ottawa: Team of Judges at uOttawa Graduate Students Poster Competition	50/150	Organized by University of Ottawa
Date: 4 March 2020 Time: From 5:00 PM to 6:00 PM Carleton University	Tech Meeting	IEEE WIE Technical Meeting	8/8	
Date: 4 March 2020 Time: From 6:00 PM to 7:30 PM Carleton University	Tech Talk	IEEE WIE OTTAWA: AI in Modern Power and Energy Systems	10/26	

Date: 5 March 2020 Time: From 6:00 PM to 9:00 PM	Conference	IEEE WIE OTTAWA: 11 Annual IEEE WIE Wine and Cheese Promotional Sponsors	100/300	IEEE WIE Student Branches
Sala San Marco Event & Conference Centre 215 Preston Street Ottawa				
Date: 30 April 2020 Time: From 2:00 PM to 3:00 PM Virtual Meeting	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	9/9	
Date: 22 May 2020 Time: From 10:30 AM to 11:30 AM Virtual Meeting	Tech Meeting	IEEE WIE Ottawa: Technical Meeting	1/5	Executive WIE member meets with technical volunteers for the purpose of preparing and testing the virtual environment for the upcoming
Date: 26 May 2020 Time: From 12 PM to 2:00 PM Virtual Event	Tech Talk	IEEE WIE/YP Ottawa: Clarifying the Path to Becoming a Professional Engineer	15/40	IEEE YP Ottawa
Date: 27 May 2020 Time: From 2:00 PM to 3:00 PM Online Talk	Tech Talk	IEEE WIE OTTAWA: Online Talk: AI in Modern Power and Energy Systems (Part II)!	19/54	
Date: 4 June 2020 Time: From 2:00 PM to 3:00 PM Virtual Meeting	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	7/7	
Date: 8 June 2020 Time: From 1:00 PM to 2:00 PM Virtual Meeting	Tech Event	IEEE WIE Ottawa: Mentorship Program Session	8/8	
Date: 10 June 2020 Time: From 12:00 PM to 12:30 PM	Tech Meeting	IEEE WIE OTTAWA: Volunteering Recruitment	1/2	

Date: 18 June 2020 Time: From 6:30 PM to 7:30 PM Virtual Event	Tech Event	IEEE WIE Ottawa: Sponsoring Microgrid Stability Definitions,		IEEE PES Ottawa
		Analysis, and Modeling		
Date: 29 June 2020 Time: From 11:00 AM to 12:00 PM Virtual Event	Tech Meeting	IEEE WIE OTTAWA: WIE Executive Team Interviewed by Carleton's Faculty of Engineering and Design to Talk about the WIE Affinity Group of the Year Award 2020	3/4	Carleton University Faculty of Engineering and Design
Date: 29 June 2020 Time: From 12:00 PM to 12:30 PM Virtual Event	Tech Meeting	IEEE WIE OTTAWA: Volunteering Recruitment	2/2	
Date: 2 July 2020 Time: From 2:30 PM to 3:30 PM Virtual Event	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	14/14	
Date: 13 July 2020 Time: From 3:00 PM to 5:00 PM	Tech Meeting	IEEE WIE OTTAWA: Cisco Webex test meeting	2/2	
Date: 14 July 2020 Time: From 6:30 PM to 7:30 PM	Tech Meeting	IEEE WIE OTTAWA: Hackathon Volunteer Recruitment Meeting	2/4	
Date: 15 July 2020 Time: From 2:00 PM to 3:00 PM Virtual	Tech Talk	IEEE WIE OTTAWA: Resource Management for Massive Connectivity in Future Wireless Networks	25/50	
Date: 20 July 2020 Time: From 5:00 PM to 5:30 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting (related to social media coordination)	2/2	

Date: 27 July 2020 Time: From 12:00 PM to 1:00 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Volunteering Recruitment	2/3	
Date: 29 July 2020 Time: From 6:00 PM to 7:30 PM Virtual	Tech Talk	IEEE WIE OTTAWA Virtual Talk: Techsploration: The Power in Possibilities	2/11	
Date: 6 August 2020 Time: From 2:30 PM to 3:30 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	11/11	
Date: 10 August 2020 Time: From 5:30 PM to 7:00 PM Virtual	Tech Event	IEEE WIE OTTAWA: WIE Can-with ANCWT, Advancing New Canadian Women in Technology		
Date: 20 August 2020 Time: From 7:00 PM to 8:00 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical meeting with IEEE Carleton Student branch and IEEE UOttawa Student Branch to discuss collaboration in the Hackathon event.	7/7	
Date: 22 August 2020 Time: From 12:00 PM to 2:00 PM Virtual	Panel	Women in STEM (WiSTEM) Ottawa Q&A Panel: Chair of IEEE WIE Ottawa is a panelist and promoting	1/26	Organized by WiSTEM Ottawa Chapter
Date: 26 August 2020 Time: From 12:00 PM to 12:30 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting for Hackathon Event Preparation	2/2	
Date: 1 September 2020 Time: From 12:00 PM to 12:30 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting for Hackathon Event Preparation	2/2	

Date: 16 September 2020 Time: From 5:00 PM to 6:00 PM Virtual	Tech Event	A Brief Introduction of IEEEXtreme and WIEHACK613	TBD	
Date: 26 September 2020 Time: From 1:00 PM to 5:00 PM Virtual	Tech Event	WIEHACK613: Edition 1! (Day 1 of the Event)	TBD	
Date: 27 September 2020 Time: From 1:00 PM to 2:00 PM Virtual	Tech Event	WIEHACK613: Edition 1! (Day 2 of the Event)	TBD	
Date: 28 September 2020 Time: From 6:00 PM to 7:30 PM Virtual	Tech Event	From bees to Drones: Exploring bio-inspired machine vision applications for precision agriculture	TBD	
Date: 1 October 2020 Time: From 2:00 PM to 2:30 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting (WIE Executive members meeting)	TBD	
Date: 1 October 2020 Time: From 2:30 PM to 3:30 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	TBD	
Date: 5 November 2020 Time: From 2:30 PM to 3:30 PM Virtual	Tech Meeting	IEEE WIE OTTAWA: Technical Meeting	TBD	

### **Awards and Recognitions**

2020 IEEE WIE Affinity Group of the Year Award.

This award is given annually to an IEEE WIE Affinity Group that has shown outstanding leadership and initiative in organizing activities. Out of more than 900 WIE groups in the world, IEEE WIE Ottawa was recognized to be the best for the year 2020 by the IEEE WIE Committee (WIEC).



Takes pleasure in presenting this certificate to the
IEEE Ottawa Women in Engineering Affinity Group
as the recipient of the

2020 IEEE Women in Engineering Affinity Group of the Year Award

In recognition of contributions on behalf of IEEE Women in Engineering



Lisa Lazareck-Asunta IEEE Women in Engineering Committee Chain 2019-2020

- IEEE WIE Ottawa has been featured in the MGA Scoop for September 2020.
- 500 USD has been awarded to IEEE WIE Ottawa by IEEE WIEC.
- 400 CAD has been granted to IEEE WIE Ottawa by IEEE WIE Canada for an outreach activity during SPAC 2020.
- The chair was appointed as a voting member on the WIEC from 1 January 2021 until to 31 December 2021.
- The chair, treasurer, and secretary have been interviewed by Carleton University Faculty of Engineering and Design to talk about the global recognition of IEEE WIE Ottawa.
- The chair has been invited as a panelist to WiSTEM Ottawa event. More information can be found here: https://www.instagram.com/wistem.ottawa/



- The chair has been interviewed on the radio about the importance of Smart Cities to IEEE WIE Ottawa community during the Carleton University's Green Energy Symposium.
- The webmaster got appointed as the IEEE XTREME 14.0 Ambassador Ottawa Region.
- 500 CAD given to IEEE WIE Ottawa from IEEE Ottawa Section for the events during 2020.

List of notable events held, sponsored or organized such as symposia, conferences, educational programs, job fairs, competitions etc.

Sponsoring and an outreach event during SPAC 2020

IEEE WIE Ottawa was delighted to engage with a large number of 300 young students and professionals from different engineering disciplines who all gathered in the IEEE SPAC 2020. It was a great opportunity to discuss the WIE vision of supporting women in their role and helping them succeed in their journey. We had a number of people, both men and women, encouraging the WIE efforts and sharing our core values. Throughout the event, the WIE Ottawa team representatives, Anastassia Gharib (Chair), Dana Haj Hussein (Secretary), Fadwa Darwaish (Treasurer), and Naomi Solomon (Outreach), were introducing IEEE WIE to people who showed a great interest to support us on social media



















as well as getting the IEEE WIE membership. IEEE WIE Ottawa booth was well placed and had more than 80 visitors. The WIE team continued to outreach to people during the dinner time in which the team had interesting connections from the industry and the educational sectors. Anastassia presented IEEE WIE through a general talk which took place during the event. The networking session at the end of the event was spectacularly beneficial as we were able to establish interesting connections. We believe this event was very beneficial not only because it was a golden opportunity to inform a large number of people about WIE but also because we were able to establish connections with people in the field that will help supporting our future events.

- Launching the IEEE WIE Mentorship Program details can be found here: https://wie.ieeeottawa.ca/wie-mentorship-program/
- We all need the right guidance at the right time. IEEE WIE Ottawa chapter has put together a mentorship program through which we aim to acknowledge the importance of the mentors in our life and knowledge sharing. IEEE WIE Ottawa has launched its program on 8th June 2020 with the first session! Our peer to peer mentoring sessions help anyone who is looking to prepare for their presentations, thesis defence, interviews, or any help they are seeking for their academic as well as professional development. Join us for our mentorship programs and let's foster the growth and development of our student community together.



 Performing events within the scope of the IEEE WIE STAR Program – details can be found here:

The IEEE Student-Teacher and Research Engineer/Scientist (STAR) Program was developed to address the growing concern that, the young girls are discouraged from careers in mathematics, science, and engineering. STAR program promotes involvement of IEEE members with local junior high and high schools in order to create a positive image of engineering careers. Through a one-to-one interaction between society volunteers and a Student-Teacher Team, STAR's aim is to create a technical support network for teachers and a mentoring program for students. The program mission is to improve the perception of the field of engineering, continue to attract more girls to the pursue an engineering career promotes to all students the endless possibilities that can result from considering engineering as a possible career option. The related events include but are not limited to:

The Annual Go Code Girl took place on Saturday, January 25th, 2020. IEEE WIE
 Ottawa had an expo booth there.

In this era where technology is revolutionizing our world, it is the need of the hour that girls get exposure to computing and engineering fields. Yet another successfully organized event put forward where IEEE WIE Ottawa had an expo booth on 25th January, for girls from grades 6th to 12th. GO CODE GIRL 2020 was an effort made to combine tech and craft to give and exciting insight into the world of codes to our budding stars. Our volunteers



Anastassia, Ragu, Aashna, and Marie interacted with all the students and engaged them with

fun and interesting talk about their involvement in engineering, technology and coding. Many parents who accompanied their children to the event were interested and excited to know about the activities of WIE Ottawa in encouraging and guiding young women to pursue a career in engineering and technology.

IEEE WIE Ottawa at REV UP 2020: An Interactive Day of Insight and Inspiration for Women- Identified Prospective Engineering and IT Students. This event was designed for women and femme-identified folks who are interested in pursuing engineering and IT at Carleton University!

IEEE WIE Ottawa was pleased to be part of an expo booth at the REV UP: an Interactive Day of Insight and Inspiration for Women-Identified Prospective Engineering and IT Students event at Carleton University. IEEE WIE Ottawa had a great opportunity to give an idea about the role of women in the engineering field and explain to students the mission and the vision of IEEE WIE Ottawa. Students were also provided with



information about our current and future activities including the IEEE WIE STAR program.

- Techsploration: the Power in Possibilities seminar has been organized to Considered a national best practice, Techsploration's award-winning 4-phase program model provides young women in Grades 9 through 12 with opportunities to explore science, engineering, trades, and technology occupations, while creating awareness about the critical role of work in their lives. It also helps them understand the significance of high school math and science for their future careers. When young women are connected from diverse backgrounds with female role models and employers who embrace diverse and respectful workplace culture, doors are opened to future career opportunities many young women may not consider otherwise. Techsploration's network of industry partners/sponsors, alumnae, teachers, role models, and volunteers has enabled young women to reach their full potential.

Launching the IEEE WIE Community Program – details can be found here:
 <a href="https://wie.ieeeottawa.ca/2020/04/16/stay-tuned-for-the-">https://wie.ieeeottawa.ca/2020/04/16/stay-tuned-for-the-</a> upcoming-ieee-wie-ottawa-webinars/

During this time of crisis, IEEE WIE Ottawa as a team strives to continue providing high quality educational and networking support. It's time for social distancing but we want to remind everyone that we all are there for each other. Take a breath, this too shall pass. Stay tuned for IEEE WIE Ottawa's upcoming webinars and online meetings! Please feel free to connect and let us know how you are doing.

 IEEE WIE Ottawa has served as promotional sponsors to the Wine & Cheese event organized by IEEE WIE Ottawa student branches.













Started the series of online seminars as a response to COVID-19.

- IEEE WIE Carleton and IEEE WIE Ottawa section teamed up and presented an Interview and Networking Workshop which helped participants to get ready for the coop or job hunt.
  - IEEE WIE Ottawa, reflecting the collaborative spirit, joined hands with IEEE WIE Carleton University to deliver the Interview and Networking Workshop. The event marked the WIE teams' efforts to help prepare the students for their upcoming interviews. The event had been well planned and carried out in two stages. Professionals and hiring managers from various engineering backgrounds provided guidance and feedback to students. The event was completed in two phases, the first phase governed an interview Q/A session, and the second event was a heads up on making the right impression in a networking event. WIE has constantly tried to be at the forefront in providing the best resources to the students to excel in their professional careers. This workshop proved to be a platform to provide exposure to budding professionals. The remarkable success was marked as more than 30 attendees participated. Stay tuned for more such interesting and knowledge filled events!













- Other professional development seminar has been organized virtually by IEEE WIE
   Ottawa jointly with IEEE YP Ottawa and PEO Ottawa Chapter such as Online Webinar
   on Clarifying the Path to becoming a Professional Engineer (P.Eng.).
- Incorporating letters of attendance for the virtual seminars.
- Organized the first virtual panel of three speakers: WIE Can-with ANCWT, Advancing New Canadian Women in Technology.

- In this ever-changing world, it's important to have the support of someone who could help and guide us to advance in our career. Women are great achievers, but due to the systemic bias, many are unable to climb up to leadership positions in their career. Women empowerment is very much needed especially in these tough times and promoting women by providing platforms where they could build themselves is need of the hour. Here in IEEE WIE Ottawa, we understand its importance and try to provide such platforms especially to the women in our society who lag behind in their learning path because of many reasons and couldn't come up. IEEE WIE Ottawa wants every woman to achieve what they desire to be. We promote not only women but also men who understand and go by our notion. ANCWT (Advancing New Canadian Women in Technology) aim is to help women with technical skills in engineering accomplish their goals by providing an employment bridging program. ANCWT was established in 2016 and has collaborated with multiple employers in the engineering field. Therefore, the IEEE-WIE, Ottawa, and ANCWT have come forward and took an oath, that we will strive hard to make women gain the required knowledge and confidence to overcome this barrier and find themselves in the background of every picture. A seminar in which Dr. Sawsan Abdul Majid, President of ANCWT accompanied by two alumni of ANCWT, Oyaje Omakwu, and Dalia Elimam took us through their journey with ANCWT in Canada.



IEEE WIE Ottawa has hosted many distinguished speakers from industry and academia.
 IEEE WIE Ottawa chapter has been privileged for being able to host events with our brilliant researchers and dive deeper into their areas of research. Some examples of successful stories include:

Prior to covid-19, we have hosted face-to-face seminars such as AI in Modern Power and Energy Systems. Dr. Mostafa FarrokhAbadi, Senior Director of Technology at BluWave-ai discussed the use of artificial intelligence (AI) in modern power and energy systems, in particular electrical distribution networks. Due to the interest of attendees and their requests, on the 27th of May 2020, IEEE WIE Ottawa Chapter organized a follow-up online session entitled AI in Modern Power and Energy Systems (Part II). WIE Ottawa had the privilege to have Dr. Mostafa FarrokhAbadi once again with over 50 attendees registered. This information session targeted topics like modern power systems, control and optimization issues, the impact of data-driven techniques, and covered real-time implementation of AI in energy storage systems as well as optimization and control. In addition, this has been an opportunity to gain insights of one of the leading start-ups, Bluwave-ai, in Grid Energy Optimization for Distribution Utilities, Microgrids and Fleet Electrification. Collaboration with such innovative companies has proved to provide an opportunity for the curious and intelligent minds of our community. The spirit of the IEEE WIE Ottawa team and collaboration is indeed a motivation during this hard time. Another great news is that Bluewave-ai is hiring! You can have the opportunity to be a part of the interdisciplinary team and gain experience with the innovation-led start-up.



Resource Management for Massive Connectivity in Future Wireless Networks by Dr. Waleed Ejaz, an Assistant Professor in the Department of Applied Science & Engineering at Thompson Rivers University, Kamloops, BC, Canada. Dr Waleed is a distinguished ACM speaker. Dr. Waleed in his seminar addressed the need for effective resource management in future wireless networks. Our audience was able to walk through his research which is



focused on communication networking aspects of the Internet of Things (IoT), with emphasis

on algorithm design, network architecture development, and system-level performance analysis. Dr. Waleed shared the need for the stronger and better massive connectivity and improved IOT applications in addressing serious issues of Digital divide and the barrier these issues cause to the goals of Sustainable

Development. With the goal to develop resource management schemes for massive connectivity in future terrestrial networks, aerial networks, and self-sustainable networks (SSNs) while considering different objectives and constraints, including network scalability, reliability, latency, efficiency (spectral usage and energy consumption), and complexity, for the next five years, Dr. Waleed definitely inspired our budding researchers in the audience. Following on the importance of connectivity, the WIE Ottawa team will be back again with more such engaging and informative online seminars.

 WIEHACK613: Edition1! https://wie.ieeeottawa.ca/wiehack613/

IEEE WIE Ottawa is interested in nurturing young talents across Ottawa, conducting the first-ever practice / mock hackathon to give college/university students the learning and experience opportunity prior to IEEE Xtreme 14.0! WIEHACK613 is friendly to students who are getting into STEM education.



- Collaborations with many IEEE and non-IEEE groups such as WiSTEM, IEEE YP & PES Ottawa, IEEE XTREME 14.0, CUHacking, IEEE student branches, Carleton University GSA, WIE Canada, Women in Data Science Ottawa Chapter, WISE Carleton University, etc.
- IEEE WIE Ottawa has been the main source of volunteers for 2020 Women in Data Science Conference.
- Team IEEE WIE Ottawa had a wonderful opportunity to promote and attend the virtual series of IEEE Women in Engineering International Leadership Conference (WIE ILC) 2020.
- Performed many other outreach activities during the year:

The annual Carleton University Green Energy Symposium took place on Saturday, January 25th, 2020. IEEE WIE Ottawa had an expo booth there. The symposium this year hosted "smart cities" as its theme. The WIE team got a chance to walk through the current state of deployment of sustainable technologies in smart cities. The event was a mind booster that gave an opportunity to interact with bright minds. The chair of IEEE WIE Ottawa was interviewed on the Carleton University's radio during the symposium, which gave her the chance to talk about the importance of sustainable and renewable energy for IEEE and promote the IEEE WIE vision.







- Marking the start of the International women's week, IEEE WIE Ottawa's booth was present at the Women In Data Science Conference. We got an opportunity to represent ourselves along with the some of leading organizations namely Ottawa safety council, Mindbridge.ai, Blackberry, Iversoft, Shopify, Bronson big data analysis, and Macadamian. Our volunteers have spread the information about the various initiatives WIE has taken and representing the enthusiasm that we as a team bring to contribute our best. The collaboration was seen as our volunteers joined hands with the organizers for the event to volunteer for the event. Leading the flag for the Women in Technology, IEEE Women in Engineering Ottawa team strives best to put forward all efforts to initiate more and more events and promote women in STEM. Join us for our upcoming events!







- IEEE WIE Ottawa has launched a new website: wie.ieeeottawa.ca, having all the
  necessary information for both members and non-members to connect with us, attend
  our events, apply for our programs, become IEEE and IEEE WIE members, volunteers
  and sponsors, as well as the benefits of the membership, recent IEEE WIE Ottawa news,
  gallery, current team members, and much more.
- IEEE WIE Ottawa has launched the Youtube channel with the first recording of one of our seminars: <a href="https://www.youtube.com/watch?v=HYMqKoq2ilY">https://www.youtube.com/watch?v=HYMqKoq2ilY</a>.
- Throughout the year, many membership development activities have been performed.

## List of special or unique events that are to be held next year

- Annual IEEE WIE Conference to be held virtually.
- Collaboration with Techsploration Ottawa for the IEEE WIE STAR program events.
- Annual hackathon (Edition 2).

## 4) IEEE Algonquin College Student Branch

Chair: Adama Bertrand, bjoshi@ieee.org

Vice Chair: John Lutz, michael.bourassa@ieee.org

Student Branch Counsellor: Wahab Almuhtadi, michael.bourassa@ieee.org

Website: https://ewh.ieee.org/sb/ottawa/algonquin/

### **List of Activities**

Total Number of Te	echnical Meetings:
This Year (2020): _	6
Last Year (2019): _	4

Date, Time, Location	Type (Tech Meeting, Workshop, DL, Social, Luncheon, etc.)	Title and Brief Description	Attendance (IEEE members and Total)	Joint Activity Sponsors
March 19, 202 6:00 pm 7:30 pm Ciena Optophotonics Lab (room T129), Algonquin College, Ottawa, Ontario,	Tech Meeting	Drone-assisted Mobile Edge Computing Speaker: Nirwan Ansari, Distinguished Professor of Electrical and Computer Engineering at the New Jersey		IEEE Ottawa  ComSoc/CTSoc/BTS, IMS, RS/PELS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch

Canada		Institute of Technology (NJIT)		
June 18, 2020. 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	Microgrid Stability Definitions, Analysis, and Modeling Speaker: Dr. Mostafa Farrokhabadi, Director of Technology at BluWave-ai, Ottawa	76/57	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
July 9, 2020 6:00 pm 7:30 pm Ciena Optophotonics Lab (room T129), Algonquin College, Ottawa, Ontario, Canada	Tech Meeting	Josephson Arbitrary Waveform Synthesizer as a Quantum Standard of Voltage and Current Harmonics Speaker: Dr. Dimitrios Georgakopoulos, Senior Research Scientist, National Measurement Institute, Sydney, Australia	39/30	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
July 28, 2020 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	Role of the Smart Grid in Facilitating the Integration of Renewables  Speaker: Prof. Dr. Saifur Rahman, Director, Advanced Research Institute, Virginia Tech, USA	60/45	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
July 30, 2020 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	Measurement, Control and Protection in Smart Grid Energy Management Systems for Smart Buildings in a Smart City  Speaker: Prof. Saifur Rahman Director of the Advanced Research Institute and Joseph R. Loring Professor of Electrical and Computer Engineering at Virginia Tech, USA.	30/10	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch

August 12, 2020 6:00 pm 7:30 pm Virtual – WebEx	Tech Meeting	The Smart City Building Blocks & Their Synergy with Smart Villages  Speaker: Prof. Saifur Rahman Director of the Advanced Research Institute and Joseph R. Loring Professor of Electrical and Computer	11/9	IEEE Ottawa PES, IMS, RS/PELS, ComSoc/CTSoc/BTS, IEEE Ottawa EA, & Algonquin College IEEE Student Branch
		Electrical and Computer Engineering at Virginia Tech, USA.		

## List of special or unique events that are to be held next year

Planning events on starting own consulting business and tax implications for consultants. This will be particularly relevant following the expected impact of Covid-19 on the economy and employment.

# 5. IEEE Ottawa Section Executive 2020

The current IEEE Ottawa Section executive officers are as follows:

Chair: Winnie Ye

Vice Chair: Ajit Paradasani

**Treasurer**: Sana Abou-Shaaban **Secretary**: Mostafa Farrokhabadi

Past Chair: Anissa Shaddy

# 6. IEEE Ottawa Section Elections for 2021 Executives

The IEEE Ottawa Section Nominations and Appointments Committee proposes the following nominees, who have agreed to serve, if elected, as the 2020 IEEE Ottawa Section Executive.

IEEE Ottawa Section Executive Slate:

Chair: Ajit Pardasani

Vice-Chair: Mostafa Farrokhabadi Treasurer: Sana Abou-Shaaban Secretary: Deyasini Majumdar

The elections will be held during the AGM 2020 Business part.

## 7. List of 2020 Section Executives and Officers

### 1) Executives

- Chair Winnie Ye, winnie.ye@ieee.org
- Vice Chair Ajit Pardasani, ajit.pardasani@ieee.org
- Secretary Mostafa Farrokhabadi, mostafa.farrokhabadi@ieee.org
- o Treasurer Sana Abou-Shaaban, sana.absh@gmail.com
- Past Chair Anissa Shaddy, <u>anissa@ieee.org</u>

### 2) Committees

- Annual General Meeting (AGM) Planning
  - o Chair Ajit Pardasani, ajit.pardasani@ieee.org
- Awards and Recognitions
  - o Chair Wahab Almuhtadi, almuhtadi@ieee.org
  - o Member Section Officers
  - Member Raed Abdullah, <u>raedabdullah@ieee.org</u>
- Bylaws
  - Chair Branislav Djokic, <u>branislav@ieee.org</u>
  - Vice Chair Kexing Liu, <u>Kexing.liu@ieee.org</u>
- Educational Activities (EA)
  - Chair Branislav Djokic, branislav@ieee.org
- Engineers in Transition Activities (EiT)
  - o Chair Emily Chen, emily.hao.chen@ieee.org
  - o Vice Chair Bruce Yu, <u>bruce.yu.gn@ieee.org</u>
- Industry Relations Committee
  - Chair Eric Karmouch, ekarmouch@ieee.org
  - o Lunch and Learn Coordinator Michael Lalonde, michael.lalonde@ieee.org
- Life Member
  - o Chair Wolfram Lunscher, wlunscher@gmail.com
- Membership Development (MD)
  - o Chair Jean-Claude Clarke, jeanclaude@ieee.org
- Nominations and Appointments
  - Chair Anissa Shaddy, anissa@ieee.org
  - o Member Rami Abielmona, <u>rabielmo@ieee.org</u>
  - o Member Sreeraman Rajan, <u>Sreeraman@ieee.org</u>
  - o Member Raed Abdullah, raedabdullah@ieee.org
  - Member Wahab Almuhtadi, <u>almuhtadi@ieee.org</u>

- Member John Grefford, <u>Grefford@ieee.org</u>
- Member Tom Lavrisa, lavrisa@ieee.org
- Member Branislav Djokic, branislav@ieee.org

#### Publications

- Chair Tejash Patel, tejashatel@ieee.org
- Social Media Coordinator Erdem Yanikomeroglu, ErdemY\_CA@ieee.org

#### Robotics Competition

- o Co-Chair Heidi Li, heidi.li.ca@ieee.org
- o Co-Chair David Huynh, david.huynh.ca@ieee.org
- Senior Membership
  - o Chair Sreeraman Rajan, Sreeraman@ieee.org
  - o Vice Chair Bhashyam Balaji
- Strategic Planning
  - Chair Raed Abdullah, <u>raedabdullah@ieee.org</u>
- Teaching In-Service Program (TISP)
  - o Chair Wolfram Lunscher, wlunscher@gmail.com
- Special Interest Group on Humanitarian Technology (SIGHT)
  - o Chair Alfredo Herrera, alfredo.herrera@ieee.org
  - Vice Chair Sean Campeau, <u>sean.campeau.ca@ieee.org</u>
  - o OS-ARIS Project Lead Kin Y. Sze, kinsze@ieee.org

#### 3) Chapters

- AESS Aerospace and Electronic Systems Society
  - Chair Sreeraman Rajan, <u>Sreeraman@ieee.org</u>
- AP/MTT Microwaves/Antennas/Propagation Society
  - Chair Marwen Ben Rejeb, marwen.benrejeb@ieee.org
  - Vice Chair Ramzi Darraji, rdarraji@ieee.org
  - Treasurer Anis Ben Arfi, anis.b.a@ieee.org
  - Secretary Ahmed Abdellatif, <u>aabdella@ieee.org</u>
- CI & SMC Joint Chapter of Computational Intelligence and Systems, Man and Cybernetics Societies
  - Chair Rafael Falcon, rfalcon@ieee.org
  - o Vice Chair Julio Valdes, Julio. Valdes@nrc-cnrc.gc.ca
- CS Computer Society
  - o Chair Eric Karmouch, ekarmouch@ieee.org
  - Vice Chair Michael Lalonde, <u>michael.lalonde@ieee.org</u>

- ComSoc, BTS & CES- Joint Chapter of Communications Society, Broadcast Technology Society and Consumer Technology Society
  - Chair Wahab Almuhtadi, almuhtadi@ieee.org
  - o Vice Chair Claude Brulé, brulec@algonquincollege.com
  - Secretary Raed Abdullah, <u>RaedAbdullah@ieee.org</u>
  - o Membership Development Tony Khoury, tkhoury@ieee.org
- CPMT Components, Packaging and Manufacturing Technology Society
  - Chair Qi-Jun Zhang, qjz@doe.carleton.ca
- DEIS Joint Ottawa-Montreal Chapter of Dielectrics and Electrical Insulation Society
  - o Chair Refat Atef Ghunem, refat.ghunem@nrc-cnrc.gc.ca
- EDS, CAS, & SSCS Joint Chapter of Electron Devices Society, Circuits and Systems Society, and Solid-State Circuits Society
  - o Chair Ramachandra Achar, achar@doe.carleton.ca
  - o Vice Chair Ihsan Erdin, ierdin@ieee.org
- EMC Electromagnetic Compatibility Society
  - Chair Syed Bokhari, <u>bokhari@ieee.org</u>
  - o Vice Chair Qiubo Ye, <a href="mailto:qiubo.ye.1997@ieee.org">qiubo.ye.1997@ieee.org</a>
- EMBS Engineering in Medicine and Biology Society
  - o Chair Sreeraman Rajan, sreeraman@ieee.org
  - Treasurer Andrew Law, andrew.law@nrc-cnrc.gc.ca
  - o Secretary Yuu Ono, <u>yuuono@sce.car</u>leton.ca
- IMS Instrumentation and Measurement Society
  - Chair Voicu Groza, vgroza@ieee.org
  - Vice Chair Branislav Djokic, branislav@ieee.org
- PHO Photonics Society
  - Chair Karin Hinzer, khinzer@uottawa.ca
  - o Vice Chair Winnie Ye, wye@doe.carleton.ca
  - o Treasurer John Bernard, john.Bernard@nrc-cnrc.gc.ca
  - Past Chair Kexing Liu, <u>kexing.liu@ieee.org</u>
  - Senior Past Chair John Alcock, John.Alcock@nrc-cnrc.gc.ca
- PES Power and Energy Society
  - o Chair Ajit Pardasani, ajit.pardasani@ieee.org
  - Vice Chair Branislav Djokic, branislav@ieee.org
  - o Secretary Shamsodin Taheri, <a href="mailto:shamsodin.taheri@gmail.com">shamsodin.taheri@gmail.com</a>
  - o Treasurer- Raed Abdullah, raedabdullah@ieee.org
  - o Past Chair Wahab Almuhtadi, almuhtadi@ieee.org
  - Webmaster Wahab Almuhtadi, <u>almuhtadi@ieee.org</u>

- RAS & CSS Joint Chapter of Robotics & Automation, and Control Systems Societies
  - Chair Jurek Sasiadek, jsas@ccs.carleton.ca
  - o Vice Chair Marek Zaremba, Marek.Zaremba@uqo.ca
- R-PEL Reliability Society & Power Electronics Society Joint Ottawa Chapter (R-PEL)
  - o Chair Raed Abdullah, RaedAbdullah@ieee.org
  - Vice Chair Tanya Gachovska, tgachovska@yahoo.com
- SP, OE, & GRS Joint Chapter of Signal Processing, Oceanic Engineering, and Geoscience and Remote Sensing
  - o Chair Yifeng Zhou, <a href="mailto:vifeng.zhou@crc.gc.ca">vifeng.zhou@crc.gc.ca</a>
- TEMS, PCS, & SSIT Joint Chapter of the Technical Management Council, Professional Communications Society, and Society on Social Implications of Technology
  - o Chair Dr. Ray Barton, Ray.Barton@IEEE.org
- VTS Vehicular Technology Society
  - o Chair Richard Yu, richard.yu@carleton.ca

### 4) Affinity Groups

- AICN Alliance of IEEE Consultant Network
  - Chair Bhagvat Joshi, bjoshi@ieee.org
  - Vice Chair Mike Bourassa, michael.bourassa@ieee.org
- YP (formerly GOLD) Young Professionals
  - Chair Mohamed Emara, emara@ieee.org
  - Vice Chair Joseph Botros, joseph.botros@carleton.ca
  - o Treasurer Ahmed Ashoor, <a href="mailto:ahmedashoor@cunet.carleton.ca">ahmedashoor@cunet.carleton.ca</a>
  - o Secretary Ville Tiukuvaara, villetiukuvaara@cmail.carleton.ca
- WIE Women in Engineering
  - o Chair Anastassia Gharib, anastassiagharib@ieee.org
  - o Vice Chair Manar Helal, <u>manarhelal@ieee.org</u>
  - o Secretary Dana Haj Hussein, dana.hajhussein@ieee.org
  - o Treasurer Fadwa Darwaish, fadwadarwaish@ieee.org

#### 5) Student Branches

- Ottawa Section Student Branch Rep
  - Chair Robert Conrad, chair@ieeeuottawa.ca
  - Vice Chair Rafid Dewan, <u>secretary@ieeecarleton.ca</u>
- Carleton University Student Branch
  - Chair Ahmed Sakr, chair@ieeecarleton.ca
  - o Co-Vice Chair Maninder Sapran, vicechair@ieeecarleton.ca

- o Co-Vice Chair Dharina Hanmunthadu, covicechair@ieeecarleton.ca
- Secretary Rafid Dewan, <u>secretary@ieeecarleton.ca</u>
- o Treasurer Valarie Figuracion, treasurer@ieeecarleton.ca
- o Publications Director Federico Naranjo, publication.director@ieeecarleton.ca
- Competitions Director- Erdem Yanikomeroglu, <u>competitions@ieeecarleton.ca</u>
- o Volunteers Director Alex Dubie, volunteerdirector@ieecarleton.ca
- o Services Director Tauheed Elahee, <u>servicesdirector@ieeecarleton.ca</u>
- External Director Kareem Assad, externaldirector@ieeecarleton.ca
- Webmaster Christopher Grant, <u>webmaster@ieeecarleton.ca</u>
- o Finance Director Hemant Gupta, financedirector@ieeecarleton.ca
- o Social Director Ariq Maclean, social@ieeecarleton.ca
- o Academic Director Hamas Waqar, <u>academicdirector@ieeecarleton.ca</u>
- o SLAM Lead Kaan Gun, slamlead@ieeecarleton.ca
- o Faculty Advisor Winnie Ye, winnie.ye@carleton.ca
- Past Chair Calvin Plett, cp@doe.carleton.ca
- Carleton University WIE Affinity Group
  - Chair Aashna Narang, wiechair@ieeecarleton.ca
  - Vice Chair Marisol Leunissen, wievicechair@ieeecarleton.ca
- University of Ottawa Student Branch
  - o Chair Michal Ridner, wiechair@ieeeuottawa.ca
  - o Vice Chair Madison Smrtka, social@ieeeuottawa.ca
  - Secretary Victoria Hough
  - Treasurer Sanat Nayar, treasurer@ieeeuottawa.ca
  - VP Communication Nicholas Morin,
  - VP Social Mohit Kapur
  - o VP Internal Ali Jafri
  - VP External Alois Clerc
  - VP Academic Vlad Jidkov
  - o McNaughton Center Director Omer Abubaker
  - o Webmaster Ryan Fleck
  - Student Advisor Robert Conrad, <u>chair@ieeeuottawa.ca</u>
  - University of Ottawa WIE Affinity Group
    - WIE Chair Shriya Gundala, wie-vicechair@ieeeuottawa.ca
    - WIE Vice Chair Marla Jazzar, academic@ieeeuottawa.ca
- Algonquin College Student Branch
  - o Chair Adama Bertrand, adamabertrand@cmail.carleton.ca
  - Vice Chair Ahmed Syed, syed0059@algonquinlive.com
  - Secretory Alexandre Kocher, koch0046@algonquinlive.com
  - o Treasurer Alex Lavoie, <u>koch0046@algonquinlive.com</u>
  - Student Ambassador Stephanie Wyshnicki, wysh0001@algonquinlive.com