

# IEEE Sendai Section Annual Report 2020

## **PART A - SECTION SUMMARY**

### **A.1 Executive Summary**

- **Section Executive Committee Member List**
  - **Section Officers [2020-2021]**
    - Chair: Motoyuki Sato (Tohoku University)
    - Past Chair: Michitaka Kameyama (Ishinomaki Senshu University)
    - Vice Chair: Shinichiro Omachi (Tohoku University)
    - Secretary: Naofumi Homma (Tohoku University)
    - Treasurer: Hitoshi Kikuchi (NTTEAST-TOHOKU)
  - **Section Executive Committee Members [2020-2021]**
    - Naoki Honma (Iwate University)
    - Koji Kotani (Akita Prefectural University)
    - Hiroyuki Masayanagi (NEC Platforms, Ltd)
    - Shin Masuda (Advantest Laboratories Co.)
    - Takashi Misono (NTTEAST-TOHOKU)
    - Hiroki Nishiyama (Tohoku University)
    - Incheon Paik (The University of Aizu)
    - Toshinori Suzuki (Tohoku Gakuin University)
    - Motoshi Tanaka (Akita University)
    - Takashi Uchino (Tohoku Institute of Technology)
    - Kiyoshi Ueda (Nihon University)
    - Qiaowei Yuan (Tohoku Institute of Technology)
    - Tetsuya Yuasa (Yamagata University)
    - Tsutomu Zeniya (Hirosaki University)
  - **Section Standing Committee Chair [2020-2021]**
    - Membership Development: Naofumi Homma (Tohoku University)
    - Technical Program: Shinichiro Omachi (Tohoku University)
    - Chapter Promotion: Shinichiro Omachi (Tohoku University)
    - Student Activities: Hiroki Nishiyama (Tohoku University)
- **Section Highlights**
  - Awarded “2019 Region10 Best Membership Retention Medium Section Award”
  - Selected as a recipient of “The 2020 Organizational Supporting Friend of IEEE Member and Geographic Activities Award” - Nippon Telegraph and Telephone (NTT) East Corporation for longstanding support to the activities of the IEEE Sendai Section.
  - Held administrative meetings of Sendai Section were as follows;
    - Annual General Meeting
    - 2 Section Board Meetings
    - 4 Administrative Officers Meetings
  - Activities for students
    - Student Session on TSJC [27<sup>th</sup> August, 2020]

- Co-sponsored “2020 Tohoku-Section Joint Convention of Institute of Electrical and Engineers, Japan (TSJC)” [27<sup>th</sup> August, 2020]
- Energetic activities of Affinity Groups in Sendai Section.
- **Major Student and Affinity Group Activities**
  - Women in Engineering Affinity Group organized 2 major events by online as follows;
    - Sendai WIE Special Session “The charm of research that female researchers can convey” [27<sup>th</sup> August, 2020]
    - Sendai WIE 3rd Anniversary Event “State of the Art Technologies Devoted to Society 5.0” [31<sup>st</sup> October, 2020]
  - Life Members Affinity Group organized 2 Special Lecture meetings by online as follows;
    - 2020-1<sup>st</sup> Special Theme: Information and Communication Technology under the Corona Pandemic [5<sup>th</sup> September, 2020]
    - 2020-2<sup>nd</sup> Special Theme: Toward Development of Information and Communication Industry [17<sup>th</sup> October, 2020]
  - Young Professionals Affinity Group Kickoff Event “Sendai YP (Young Professionals) in TOHOKU” was held by online. [30<sup>th</sup> October, 2020]
- Awards
  - Sendai WIE Awards 2020

## A.2 Financial Report

The Sendai Section’s finances are in good condition. However, the surplus carried forward was considerably higher than we had expected due to COVID-19 spread in 2020.

- Financial summary of 2020 FY is as follows (not incl. CB);

(All in JPY)

Income/Expense	Item	Budget	Actual
Income	3.10 Rebate from IEEE HQ	648,000	687,838
	3.30 Section or Council Receipts	250,000	19,118
	3.34 IEEE HQ & Societies	1,512,000	1,435,957
	3.45 Interest	100	16
	<b>Total of Income</b>	<b>2,410,100</b>	<b>2,142,929</b>
Expense	4.10 Meeting & Social Evens	830,000	158,531
	4.80 Student Activities	230,000	25,861
	4.85 Grants & Awards	140,000	34,281
	5.20 Travel	140,000	4,000
	5.50 Support Section & Chapter (incl. JC)	1,229,040	1,096,880
	5.60 Management & General Expense	100,000	120,088
	Other	228,000	0
	<b>Total of Expense</b>	<b>2,897,040</b>	<b>1,439,641</b>

Balance of year end of 2019	1,615,407	1,615,407
Balance of year end of 2020	1,128,467	2,318,695

- In addition, Sendai Section have \$3,000 as income (3.34 IEEE HQ & Societies) at Concentration Banking account.

## **PART B - ORGANIZATIONAL ACTIVITIES**

### **B.1 Membership Development Activities**

Membership Development Committee nominated and supported to upgrade to Senior Member. The number of Senior Members in Sendai Section steadily increasing year by year.

- Total number of active members in the past 3 each year is 669 (2020), 711 (2019), 705 (2018).
- 6 members were newly elevated to Senior Member in Sendai Section.
- The number of memberships by grade in the past 3 each year is as follows;

Grade	Members		
	2020FY	2019FY	2018FY
Fellow	27	30	32
Senior Member	77	71	66
Member	439	464	477
Associate Member	18	17	16
Graduate School Member	102	116	107
Student Member	6	13	7
Total	669	711	705

### **B.2 Chapter Activities**

Chapter Promotion Committee supported Chapters activities in Sendai Section.

- The following 4 Chapters are active.
  - SP01 Sendai Chapter held 3 technical meetings.  
Chair: Yukio Iwaya (Tohoku Gakuin University)
  - COM19 Sendai Chapter held 3 technical meetings.  
Chair: Nei Kato (Tohoku University)
  - EMC27 Sendai Chapter held 10 technical meetings.  
Chair: Shinobu Ishigami (Tohoku Gakuin University)
  - MAG33 Sendai/Sapporo Joint Sections Chapter held 1 technical meeting.  
Chair: Kazushi Ishiyama (Tohoku University)

### **B.3 Professional and Continuing Education Activities**

Technical Program Committee arranged technical meeting on section level.

- IEEE AP-S Distinguished Lecturer Meeting (Cooperated) [16<sup>th</sup> January, 2020]  
“Multiscale Computational Electromagnetics for Wireless Power Transfer, EMI and Antenna Applications”
  - Lecturer: Prof. Qing Huo Liu (Duke University)
  - Venue: Electrical, Information and Physics Engineering, Tohoku University
  - Attendance: 32
- IEEE AP-S Distinguished Lecturer Meeting (Cooperated) [6<sup>th</sup> February, 2020]  
“Reflectarray Antennas: Theory, Designs, And Applications”
  - Lecturer: Prof. Fan YANG (Tsinghua University)
  - Venue: Electrical, Information and Physics Engineering, Tohoku University
  - Attendance: 32

- Workshop -AI Application for Service Computing Environment and Other Issues (Cooperated) [29<sup>th</sup> May, 2020]
  - Online Meeting (Zoom)
  - Attendance: 20

## B.4 Students Activities

- Student Session on 2020 Tohoku-Section Joint Convention of Institute of Electrical and Engineers, Japan (TSJC) [27<sup>th</sup> August, 2020]

Student Sessions organized making for scientific presentation/discussion and technical writing all in English have been held in annual academic meetings since 2002. In spite of paper submission only under the influence of the COVID-19, 13 papers were submitted by students in this session.

- Two Student Branches are active in Sendai Section. Student Activities Committee supported Student Branches activities.
  - Tohoku University Student Branch
    - Chair: Hiroaki Hashida
    - Supported to Sendai YP Affinity Group Kickoff Event “Sendai YP (Young in TOHOKU)” [30<sup>th</sup> October, 2020]
    - Cooperated to Sendai WIE Affinity Group 3rd Anniversary Event [31<sup>st</sup> October, 2020]
  - The University of Aizu Student Branch
    - Chair: Le Doan Hoang
    - Supported to Sendai YP Affinity Group Kickoff Event “Sendai YP (Young in TOHOKU)” [30<sup>th</sup> October, 2020]
- Student Activities Committee Meeting via online (2020-1st) [24<sup>th</sup> April, 2020]

## B.5 Affinity Group Activities

- **Women in Engineering Affinity Group (WIE)**

Chair: Qiaowei Yuan (Tohoku Institute of Technology)

- **Sendai WIE Special Session “The charm of research that female researchers can convey” [27<sup>th</sup> August, 2020]**

In this session, one invited talk, 8 presentations from Japanese universities and 5 presentations from Singapore WIE were all narrated attractively by female researchers, encouraging all participants to explore science and technology with passion and efforts. Invited talk by Prof. Etsuko Ueda (Osaka Institute of Technology, Chair of Kansai WIE), taught us how to evaluate the grace and how to control robot behave graceful quantitatively. Moreover, the session has started the international cooperation between Sendai WIE and Singapore WIE.

- Online Meeting (Zoom)
- Attendance: 54

- **Sendai WIE 3rd Anniversary Event “State of the Art Technologies Devoted to Society 5.0” [31<sup>st</sup> October, 2020]**

The ceremony consisted of two parts focusing on the topic of state of the Art Technologies Devoted to Society 5.0. In the first part, there were special talks from three famous lecturers. In the second part, all attendees were divided into several groups to discuss our contribution to Society 5.0 and some interesting topics related with the state of the Art Technologies of Society 5.0.

- Lecturer: Dr. Akinori Nishihara (R10 Director / Tokyo Institute of Technology)  
Prof. Noriko Osumi (Tohoku University)  
Prof. Akira Ando (Tohoku University)

- Online Meeting (Zoom)

- Attendance: 37



- **The 1st Singapore WIE and Sendai WIE Zoom Meeting [6<sup>th</sup> June, 2020]**

This meeting was the first case collaborated with overseas WIE. After each WIE's activities during one year were shared, the situation of WIE members in Singapore and Sendai during COVID-19 pandemic, and discussed what we can do for the members now and near future.

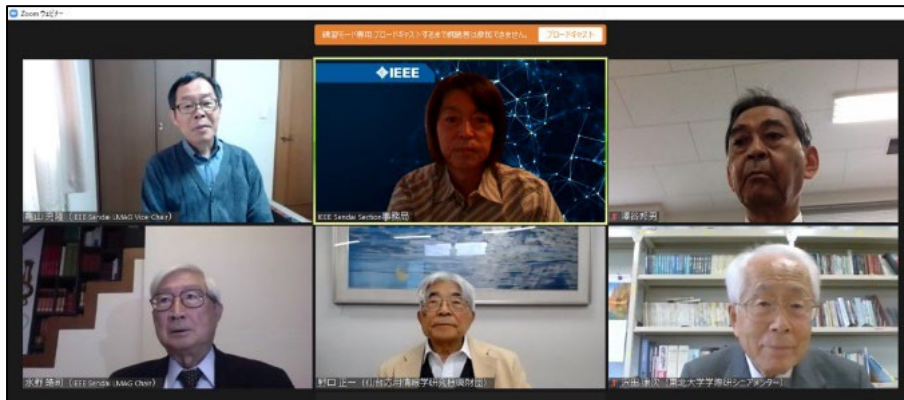
  - Online Meeting (Zoom)
  - Attendance: 7
- Joined IEEE Online Gathering “Current Situation of COVID-19 - Japan vs Others” [16<sup>th</sup> May, 2020]
- Lecture Meeting (cooperative)  
“Implantable Antennas for Medical Applications: Technology, Practice, Ethics” [9<sup>th</sup> September, 2020]
  - Lecturer: Dr. Cynthia Furse (Engineering Department at the University of Utah)
  - Online Meeting (Zoom)
  - Attendance: 31
- Sendai WIE Award 2020
- 8 administrative meetings were held in 2020.
- **Life Members Affinity Group (LMAG)**

Chair: Koji Mizuno (Professor Emeritus, Tohoku University)

One of the most important roles in the Sendai LMAG is to encourage young people through lectures on big movement of information communication technology. From such a point of view, Sendai Section Life Members Affinity Group held the following 2 Lecture Meetings.

  - Sendai LMAG Special Lecture Meeting (2020-1st) [5<sup>th</sup> September, 2020]  
Special Theme: Information and Communication Technology under the Corona Pandemic
    - Lecture (1): 5G and its Future Systems to Accelerate Social Change  
Dr. Fumiyuki Adachi (Research Organization of Electrical Communication, Tohoku University)
    - Lecture (2): Post Corona Health Sensing  
Prof. Makoto Yoshizawa (Cyberscience Center, Tohoku University)
  - Online Meeting (Zoom)

- Attendance: 92
- Sendai LMAG Special Lecture Meeting (2020-2nd) [17<sup>th</sup> October, 2020]  
Special Theme: Toward Development of Information and Communication Industry
  - Lecture (1): To Create a New Information and Communication Industry in Tohoku  
Dr. Shoichi Noguchi (Professor Emeritus, Tohoku University)
  - Lecture (2): "Self-Existence and Communication" Indispensable for a Human-Centered Information and Communication Society  
Dr. Yasuji Sawada (Professor Emeritus, Tohoku University)
- Online Meeting (Zoom)
- Attendance: 42



- 1 administrative meeting was held in 2020.
- Young Professionals Affinity Group (YP)  
Chair: Toya Kitagawa (Panasonic Corporation / Yamagata University)
- Sendai YP Affinity Group Kickoff Event “Sendai YP (Young Professionals) in TOHOKU”  
[30<sup>th</sup> October, 2020]

Sendai Young Professionals Affinity Group was established on 21st June, 2019. In this event, after establishment ceremony, general meeting, the special lecturer held by Mr. Yuki Ichikawa (Harvest X).

- Online Meeting (Zoom)
- Attendance: 20



- Co-Sponsored IEEE Japan SYWL Workshop in Hiroshima 2020 [17<sup>th</sup> October, 2020]
- IEEE Transdisciplinary-Oriented Workshop for Emerging Researchers Meeting (20 times)  
In this meeting, Sendai YP members prepared for an IEEE TOWERS workshop online.
- 15 administrative meetings were held in 2020.

## B.6 Awards & Recognition Activities

- Sendai WIE Awards 2020

Sendai WIE awarded “IEEE Sendai WIE Awards” to the excellent papers in the WIE Special Session on Tohoku-Section Joint Convention of Institutes of Electrical and Information Engineers. These awards will contribute to foster and encourage female engineers and researchers.

- Recipient of The Best Paper Prize
  - Ge Chang (Tohoku University)
- Recipient of The Encouragement Prize
  - Yukina One (National Institute of Technology, Sendai College)
- Awards and Recognitions received from R10 and IEEE HQ are as follows,
  - 2019 Region10 Best Membership Retention Medium Section Award - Sendai Section
  - The 2020 Organizational Supporting Friend of IEEE Member and Geographic Activities Award - Nippon Telegraph and Telephone (NTT) East Corporation for longstanding support to the activities of the IEEE Sendai Section.

## B.7 Communication Activities (Newsletter, Home Page, E-mail etc.)

- Home Page of the Section and Chapters, Affinity Groups
  - Sendai Section  
<http://www.eeci.tohoku.ac.jp/ieee-sendai/>
  - Chapters
    - SP01  
<http://www.sps-sendai.org/>
    - EMC27  
<http://www.topic.ad.jp/emc-sendai/>
    - COM19  
[https://webinabox.vtools.ieee.org/wibp\\_home/index/CH10605](https://webinabox.vtools.ieee.org/wibp_home/index/CH10605)
    - MAG33  
<http://www.topic.ad.jp/mag-sendai/>
  - Affinity Groups
    - Sendai WIE  
<https://www.ieee-jp.org/section/sendai/AG/wie/>
    - Sendai LMAG  
<https://www.ieee-jp.org/section/sendai/AG/lmag/>
    - Sendai YP  
<https://www.ieee-jp.org/section/sendai/AG/yp/>
- Contributed to Newsletter
  - Sendai WIE: contributed 2 articles to the Region10 newsletter (2020-October, 2021-January)
  - Sendai YP: contributed 1 article to the Region10 newsletter (2021-January)

- Provided 20 times of information of meetings, seminar, and other events for section members via mailing list

## **B.8 Industry Relations**

Sendai Section is striving for membership growth through Technical Meetings, workshops, and various activities.

## **B.9 Humanitarian Technology Activities**

There is nothing worthy of special mention in 2020.

## **B.10 Community Activities**

There is nothing worthy of special mention in 2020.

## **PART C - OTHERS**

### **C.1 Special Events**

There is nothing worthy of special mention in 2020.

### **C.2 Relationship with National and International Societies and Non-Government Organizations (NGO)**

Sendai Section is maintaining a good relationship with Tohoku Section of the following 7 National Societies.

- The Acoustical Society of Japan (ASJ)
- The Institute of Electrical Engineers of Japan (IEEJ)
- The Illuminating Engineering Institute of Japan (IEIJ)
- The Institute of Electronics, Information and Communication Engineers (IEICE)
- The Institute of Electrical Installation Engineers of Japan (IEIEJ)
- Information Processing Society of Japan (IPSJ)
- The Institute of Image Information and Television Engineers of Japan (ITE)

### **C.3 Collaboration with other IEEE Sections**

- Sendai Section has been continuing to cooperate with other Sections by attending Japan Council ExCom Meeting, R10 Meeting and other opportunities.
- Sendai WIE started to collaborate the joint activities with Singapore Section WIE.

### **C.4 Support extended to Sub-sections & Society Chapters within the Section**

Chapter Promotion Committee supported Chapter activities through a year.

### **C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)**

Motivated by the experience of The East Japan Great Earthquake Disaster, we have been organizing a series of the lecture meetings on “technologies covered by IEEE can contribute to disaster recovery, prevention, safety measures and regional industrial development” since 2011.



## **C.6 Problems anticipated and suggestions for solutions, if any**

There is nothing worthy of special mention in 2020.

## **PART D - GOALS AND PLANS**

### **D.1 Continuation of project/activity in progress and their implementation plans**

- Technical Lecture Meetings
- Planning Educational activities
- Activities for students
  - Student Session on TSJC
  - Seminar for effective English writing skills.
  - Student Awards 2021
- Forming new Student Branch
- Assistance for elevation to Senior Member, Fellow
- Growth of the number of Section members
- Co-sponsored 2021 Tohoku-Section Joint Convention of Institute of Electrical and Engineers, Japan (TSJC)
- Support for Chapters activities
- Support for Affinity Groups activities
- Support for Student Branches activities
- Annual General Meeting
- Administrative meetings
  - Section Board Meetings
  - Administrative Officers Meetings

### **D.2 Goals and Future Plans**

- Planning for section unique activities by standing committees
- Organizing events for improving skill of members
- Encouragement for students
- Promotion to develop Senior Member and Fellow
- Continuously support to Chapters / Affinity Groups
- Educational Activities for Section Members
- Be more useful for section members

### **D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.**

- We will organize activities to contribute for regional industrial development in Tohoku in the future.
- we will renovate contents of section website, provide more opportunity for everyone to get to know activities of Sendai Section.

#### **D.4 Business Plan for Sustainable Growth and Financial Stability.**

We will continue to provide more beneficial activities for section members with keeping good financial condition.

**Sendai Section will continue to enhance our activities in the future!**