

# IEEE Nagoya Section Annual Report 2023

## **PART A - SECTION SUMMARY**

### **A.1 Executive Summary – (Please follow the format given below)**

- Section Executive Committee Member List

#### **(a) Officers:**

Chair:

Dr. Jun Sato (Professor, Nagoya Institute of Technology)

Vice Chair:

Dr. Unoki Masashi (Professor, Japan Advanced Institute of Science and Technology)

Secretary:

Dr. Nobuo Kawaguchi (Professor, Nagoya University)

Treasurer:

Dr. Yoshinobu Murakami (Associate Professor, Toyohashi University of Technology)

Auditor:

Mr. Shuji Tomura (Toyota Central R&D LABS)

#### **(b) Standing Committee Chairs:**

Member Advancement and Nomination Committee:

Dr. Nobuhiro Ito (Professor, Aichi Institute of Technology)

Membership Development Committee:

Dr. Daisuke Iioka (Associate Professor, Chubu University)

Technical Activities Committee:

Mr. Tomoaki Nonome (Toyota Industries Corporation)

Student Activities Committee:

Dr. Daisuke Yamamoto (Associate Professor, Nagoya Institute of Technology)

Award Committee:

Dr. Norimichi Ukita (Professor, Toyota Technological Institute)

Chapter Operation Committee:

Dr. Junichi Asama (Associate professor, Shizuoka University)

#### **(c) Past Chairs:**

2021-2022 Chair:

Dr. Masaaki Katayama (Professor, Nagoya University)

2019-2020 Chair:

Dr. Naohiro Hozumi (Professor, Toyohashi University of Technology)

2017-2018 Chair:

Dr. Yutaka Ishibashi (Professor, Nagoya Institute of Technology)

2015-2016 Chair:

Dr. Takeshi Furuhashi (Professor, Nagoya University)

2009-2010 Chair, Milestone:

Dr. Masayuki Nagao (Professor, Toyohashi University of Technology)

- Section Highlights

- (1) The 25th anniversary ceremony of the IEEE Nagoya Section was held in December 2023.
- (2) Nagoya Section received 2023 IEEE Membership Outstanding Recruitment Performance in September 2023.
- (3) Nagoya Section received 2023 Region 10 Best Membership Retention Medium Section Award in September 2023.
- (4) Nagoya Section supported the IEEE Milestone application of "Toyota Prius, the world's first mass-produced hybrid vehicle" from Toyota Motor Corporation.
- (5) Memorable medals to celebrate the promotion to senior members were given to 7 members in August 2023.
- (6) IEEE Nagoya Section Student Research Presentation Awards in IEEE international conferences were given to 6 students. The Award ceremony was held in April 2023.
- (7) IEEE Nagoya Section Student Awards were given to 5 excellent students who presented their research in 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Tokai Area.
- (8) IEEE Nagoya Section Student Awards were given to 2 excellent students who presented research in 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Hokuriku Area.
- (9) A number of technical activities were organized and co-organized by Nagoya Section, and a total of 26 events including 5 sponsored events were held successfully in 2023.

- Major Events (International, National)

- (1) The 25th anniversary ceremony of the IEEE Nagoya Section was held in December 2023.
- (2) A ceremony to grant memorable medals to celebrate the promotion to 7 senior members was held in August 2023.
- (3) The ceremony of IEEE Nagoya Section Student Research Presentation Awards was held in April 2023.
- (4) 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Tokai Area was held in August 2023, and 5 excellent student presenters were selected for IEEE Nagoya Section Student Awards.
- (5) 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Hokuriku Area was held in September 2023, and 2 excellent student presenters were selected for IEEE Nagoya Section Student Award.

- Major Chapter Activities

- AP-S Nagoya Chapter organized 4 technical meetings.
- MAG-S Nagoya Chapter organized 6 technical meetings.
- MTT-S Nagoya Chapter organized 13 technical meetings.
- ITS-S Nagoya Chapter organized 2 technical meetings.

- Major Student and Affinity Group Activities

- Life Member Affiliate Group (LMAG) organized 3 General Meeting and 3 technical meetings.
- Student Branch in Nagoya University organized 3 General Meeting, Student Branch Leadership Training Workshop (SBLTW2023) and Student Branch Research Presentation Encouragement Workshop.

- o Student Branch in Fukui University organized 1 technical meeting and 1 General Meeting.
- o Student Branch in Shizuoka University organized 1 General Meeting and 2 technical meetings.
- Awards
  - o No member was awarded Fellow Grade.
  - o 2 members were awarded Senior Member Grade.

## A.2 Financial Report – (Please follow the format given below)

- Summary (as per submitted on NetSuite)
  - o Total Receipts during the year 2023 were 5,675,714JPY including the assessment and rebate of 1,241,968JPY from IEEE HQ. The total disbursements amount to 4,382,114JPY.
- Any other financial activities
  - o None

## **PART B - ORGANIZATIONAL ACTIVITIES**

### B.1 Membership Development Activities

- Total number of active members in the past 3 years.

November 2021: 1,301  
 November 2022: 1,328  
 December 2023: 1,378

The number of members of the Nagoya Section as of Dec. 2023 is as follows: (The numbers in parentheses are for Oct. 2022. All figures are from SAMIEEE.)

Fellow:	28	(30)
Senior Member:	107	(113)
Member:	979	(965)
Associate Member:	28	(19)
Student Member:	236	(201)
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Total	1,378	(1,328)

- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members.
  - o Several student support activities such as the student research presentation awards in IEEE international conferences and the student awards for research work in local universities and Joint Congresses presentation have been penetrated to the society and positively attracted students for joining the IEEE.
  - o For encouraging Nagoya Section members to apply toward Fellow grade and Senior Member grade, an example of written application form as well as a letter of encouragement were posted on the Nagoya Section's Home Page, and sent to Nagoya Section members by using a Japan Council mailing list service.
  - o Recruiting activities for IEEE membership were held at the sponsored and co-sponsored events.
  - o In March 2023, emails requesting membership renewal were sent to members who had not renewed their IEEE membership (Arrears), urging them to renew their membership.
  - o In 2020, it was decided to award commemorative medals made by the Japan Mint to new Senior Members as part of efforts to increase Senior memberships in Japan, following the example set by activities in the Kansai Section. This initiative aimed to enhance membership retention and encourage an increase in Fellow memberships. The award ceremony was held in 2023.

## B.2 Chapter Activities

- Total number of Chapters in the Section  
Four (4), AP-S, MAG-S, MTT-S, and ITS-S
- Number of Chapters formed in the current year  
None
- Number of active Chapters (Chapters who have reported required number of meetings during the year)  
Four (4), AP-S, MAG-S, MTT-S, and ITS-S
- Summary of Chapter activities (Chapter wise with attachment table/information)

### ■ AP-S Nagoya Chapter

#### (1) Technical Meetings:

March 16, 2023  
IEEE AP-S Nagoya Chapter Special Talk  
Toyama-kenmin-kaikan, Toyama

April 17, 2023  
Midland Student Express 2023 Spring  
Winc Aichi, Nagoya, Aichi

December 22, 2023  
IEEE AP-S/MTT-S Nagoya Chapter Technical Lecture Meeting  
Shizuoka University, Hamamatsu, Shizuoka

December 22, 2023  
Midland Student Express 2023 Autumn  
Shizuoka University, Hamamatsu, Shizuoka

#### (2) Cooperation:

December 22, 2023  
IEEE AP-S/MTT-S Nagoya Chapter Technical Lecture Meeting  
Shizuoka University, Hamamatsu, Shizuoka

#### (3) IEEE Distinguished Lecturer Lecture Meetings:

None

### ■ MAG-S Nagoya Chapter

#### (1) Technical Meetings:

February 2, 2023  
IEEE Magnetics Society Nagoya Chapter, Young Researcher Meeting  
Nagoya University, Aichi

March 3, 2023

Joint Workshop of IEEE Magnetics Society Nagoya Chapter &  
IEICE Technical Committee on Magnetic Recording, IEEJ Technical Committees on Magnetics  
and Electronic Materials  
Online

May 29, 2023  
Special Lecture Meeting : Prof. Giovanni Finocchio  
Nagoya University, Aichi

June 20, 2023  
Special Lecture Meeting : Prof. Mathias Klaui  
Nagoya University, Aichi

(2) Cooperation:

None

(3) IEEE Distinguished Lecturer Lecture Meetings:

May 24, 2023  
Special Lecture Meeting : Prof. Manuel Vazquez (IEEE Magnetics Society 2023 Distinguished  
Lecturer)  
Nagoya University, Aichi

October 3, 2023  
Special Lecture Meeting : Prof. Yoichiro Tanaka (IEEE Magnetics Society 2023 Distinguished  
Lecturer)  
Nagoya University, Aichi

■ MTT-S Nagoya Chapter

(1) Technical Lectures:

March 2, 2023  
2022 IEEE MTT-S JAPAN YOUNG ENGINEER AWARD & MICHYUKI UENOHARA  
MEMORIAL AWARD CEREMONY  
Tottori University, Tottori

April 17, 2023  
IEEE MTT-S Nagoya Chapter Special Technical Lecture 2023  
Winc Aichi, Nagoya, Aichi

September 21, 2023  
2023 IEEE MTT-S Japan Young Engineer Award Review Committee  
Online

November 30, 2023  
2023 IEEE MTT-S Japan Young Engineer Award Presentation  
PACIFICO Yokohama, Kanagawa

(2) Cooperation:

January 27, 2023  
The 15th JEMEA Workshop -Microwave and High-Frequency Technologies Expected by  
Microwave User Companies-  
Online

April 17, 2023  
Midland Student Express 2023 Spring

Winc Aichi, Nagoya, Aichi

May 26, 2023

The 14th JEMEA Lecture MTG-Microwave plasma enhanced CVD Technology foresight of Artificial Diamond-Online

October 25, 2023

The 15th JEMEA Symposium -Cutting-edge Electromagnetic Wave Energy Utilization Technologies for Sustainable Development Goals  
Kitakyushu Convention and Visitors Association, Fukuoka

December 13, 2023

The 15th JEMEA Symposium -Cutting-edge Electromagnetic Wave Energy Utilization Technologies for Sustainable Development Goals  
Innovation Center, Bangkok Metropolis, Thailand

December 22, 2023

IEEE AP-S/MTT-S Nagoya Chapter Technical Lecture Meeting  
Shizuoka University, Hamamatsu, Shizuoka

December 22, 2023

Midland Student Express 2023 Autumn  
Shizuoka University, Hamamatsu, Shizuoka

(3) IEEE Distinguished Lecturer Lecture Meetings:

April 17, 2023

IEEE MTT-S Nagoya Chapter Distinguished Microwave Lecturer's Special Lecture 2023  
Winc Aichi, Nagoya, Aichi

■ ITS-S Nagoya Chapter

(1) Technical Lectures:

August 31, 2023

IEEE ITSS Nagoya Chapter 2023 1st Annual Conference  
Nagoya University, Aichi

December 23, 2023

IEEE ITSS Nagoya Chapter 2023 2nd Annual Conference  
Nagoya University, Aichi

(2) Cooperation:

None

(3) IEEE Distinguished Lecturer Lecture Meetings:

None

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

Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs with attachment table / information

Sponsorship	Event Category	Date	Event Title
cooperation	Technical	Jan 18-19	Research Seminar for Organic Electronics & dielectric and insulating materials
cooperation	Technical	Jan 23	6th IPSJ Tokai Branch Lecture Meeting 「Application of AI and Robotics in Remote Sensing of Environmental Disasters」
cooperation	Technical	Feb. 11	The 24th Annual Joint Master's Thesis Presentation on Communications and Related Engineering by Students of Three Universities in Tokai Area
cooperation	Technical	Feb 16-17	The 50th Workshop of Tokai Chapter of Japan Society for Fuzzy Theory and Intelligent Informatics
cooperation	Technical	Mar 6	IEEJ Tokai Section Young Researchers Seminar “Communications and Signal Processing Technology for Society 5.0
cooperation	Technical	Mar 31	The 2nd Energy Systems Symposium: Technological Trends in the Mobility Sector for a Decarbonized Society
cooperation	Technical	May 19	ISPJ Tokai Branch Special Lecture 「Development, evolution, and popularization of QR CODE」
cooperation	Technical	Jun 24	The 2023 Workshop of Tokai Chapter of Japan Society for Fuzzy Theory and Intelligent Informatics (The 2023 Tokai Fuzzy kenkyukai)
cooperation	Technical	Jul 26	IEICE Tokai Section, Student Lecture 「Detection of target objects from video and audio by integration of image difference method and AI」
cooperation	Technical	Aug 8-9	The 54th Workshop of Tokai Chapter of Japan Society for Fuzzy Theory and Intelligent Informatics (The 54th Tokai Fuzzy Kenkyukai)
sponsored	Technical	Aug 28-29	2023 Tokai-Section Joint Conference on Electrical, Electronics, Information, and Related Engineering
sponsored	Technical	Sep 3	Joint Conference of Hokuriku Chapters of Electrical and Information Societies 2023
cooperation	Technical	Sep 5	IEEJ Tokai Section Young Researchers Seminar “Communications and Signal Processing Technology for Society 5.0”
cooperation	Technical	Sep 29	The 3rd Energy Systems Symposium: Recent Trends and Future Developments in Renewable Energy for Carbon Neutrality
cooperation	Technical	Oct 6	4th IPSJ Tokai Branch Lecture Meeting 「The future of computing technology based on semiconductors」
cooperation	Technical	Oct 21	The 2nd Public Lecture: Future Renewable Energy Trends Toward Carbon Neutrality
cooperation	Technical	Oct 21	The 2023 Workshop of Tokai Chapter of Japan Society for Fuzzy Theory and Intelligent Informatics in Fall (The 2023 Tokai Fuzzy Kenkyukai)
cooperation	Technical	Dec 22	Student Presentation Event Autumn 2023
cooperation	Technical	Dec 22	「Digital Transformation for changing the utility company」

## B.4 Students Activities

- Total number of Student Branches in the Section
  - Three (3): Nagoya University, Shizuoka University and Fukui University
- Number of Student Branches formed in the current year
  - None
- Section level student activities (student congress, paper and other contests, awards etc)
  - 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Hokuriku Areas was held in November 2023, and IEEE Nagoya Section Student Awards were awarded to 2 excellent student presenters.
  - 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Tokai Areas was held in December 2023, and IEEE Nagoya Section Young Researcher Awards were awarded to 3 excellent student presenters.
  - 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Tokai Areas was held in January 2024, and IEEE Nagoya Section Student Awards were awarded to 5 excellent student presenters.
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)

Three (3): Nagoya University, Shizuoka University, Fukui University
- Summary of Student Branch activities (Student Branch wise with attachment table/information)
  - Nagoya University SB
    - 2 General Meeting (January 10, 2023)(December, 2023) - workshop, research exchange
    - 2023 IEEE Student Branch Leadership Training Workshop (Jun 30-July 1, 2023)
    - 2023 IEEE Student Branch Research Presentation Encouragement Workshop (July 4, 2023)
  - Shizuoka University SB
    - 2023 IEEE Student Branch Activity Meeting (May 16, 2023)
    - Tokai District University Joint Research Presentation (July 11, 2023)
    - 2023 IEEE Student Branch Research Presentation Encouragement Workshop (Dec 19, 2023)
  - Fukui University SB
    - General Meeting (May 16, 2023) - workshop, research exchange
    - Lecture from IEEE members (Dec 13, 2023)

## B.5 Affinity Group Activities

- Young Professional (YP)
  - Organizing Non-technical Meeting (Oct 6, 2023)
  - Organizing Nagoya YP social event 2023- visit to SAKE BREWEARY in Mie Prefecture (Oct 28, 2023)
  - Sponsoring IEEE Japan SYWL Workshop in Nagano 2023 (Nov 24, 2023)
- Women In Engineering (WIE)
  - Presenting the WIE history and activities in IEEE Nagoya Section 25th ceremony(Dec 9, 2023)
- Life Member (LM)



- 3 General meeting (Feb 12, 2023) (July 27, 2023) (Oct 23,2023)
- Co-hosting the 2023 LMAG Nagoya Online Lecture and Discussion (JAIST Information Science Seminar) (May 30,2023)
- Organizing Technical lecture about the QR(QUICK RESPONSE)code and the Factory tour (Nov 7, 2023)
- Technical meeting (Dec 14, 2023)

## **B.6 Awards & Recognition Activities**

- Award constituted by the Section
  - IEEE Nagoya Section Student paper Awards of 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Tokai Area were given to 5 excellent student presenters at the Tokai Area Conference.
  - IEEE Nagoya Section Student Award of 2023 Joint Conferences of Institutes related to Electrical, Electronics, and Information Engineering in Tokai Area was given to 2 excellent student presenter at the Hokuriku Area Conference.
  - Student Research Presentation Awards in IEEE international conferences were given to 6 students.
  - IEEE Nagoya Section Young Researcher Awards were given to 3 excellent young researchers under 35 years old
- Please list all Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year
  - Nagoya Section received 2023 IEEE Membership Outstanding Recruitment Performance in September 2023.
  - Nagoya Section received 2023 Region 10 Best Membership Retention Medium Section Award in September 2023.

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

- Newsletter (name and number of issues in the year)
  - None.
- Home Page of the Section (give the URL and how often it is updated)
  - <https://ieec-jp.org/section/nagoya/>
  - Updating about every event.
- Other means of contacts with Section members including social media
  - Mailing lists are available for section officers, executive committees, LMAG and YP core members.
  - Mailing lists service by Japan Council is available for announcements of section annual meeting, encouragement of application to Senior Member and Fellow grade, call for award applications and technical activities.

## **B.8 Industry Relations**

- Membership growth and retention
  - IEEE Nagoya Section sends request e-mails for new membership and retention of IEEE membership to all the members and non-renewal members, respectively, in February and April. However, when student members enter industry, unfortunately some of the members leave from the IEEE.

- Membership recruitment brochures are distributed to attendees when technical meetings are organized/cooperated by IEEE Nagoya Section.
- Activities for/with industrial members
  - Chapter activities in Section B.2 and technical meetings in Section B.3 are held for industrial members as well as for academic members.

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

- Humanitarian Technology related activities supported by the Section including collaboration with other OUs.
  - None.
- SIGHT Activities
  - None.

## **B.10 Community Activities**

- IEEE Social activities (Family day, IEEE day, Engineers Week)”
  - None.

## **PART C - OTHERS**

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

- Please briefly describe the importance of special events and the outcomes achieved.
  - The 25th anniversary ceremony of the IEEE Nagoya Section was held on December 9 ,2023. In the event, we had a relay talk from past chairs and YP, WIE, SB students. It was a great opportunity to exchange the experience of membership development.
- Funding secured from the IEEE and external sources including sponsorships.
  - None.

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

- Nature of relationship and details of any formal agreement signed
  - Two annual activities are sponsored by IEEE Nagoya Section together with national societies. Around 23 activities organized by national societies are financially/technically cooperated by IEEE Nagoya Section.
- Details of joint activities
  - **Sponsored Activities**
    - We have the following two joint activities every year:
      - (a) Joint Conference of Institutes related to Electrical, Electronics, and Information Engineering in Tokai Area

- Sponsored together with IEEJ Tokai Branch, IEICE Tokai, IPSJ Tokai Branch, ITE Tokai, IEIJ Tokai, IEIEJ Chubu, and ASJ (Acoustical Society of Japan) Tokai Chapter
- IEEE Nagoya Section Student Awards are given to several students every year in this conference.
- (b) Joint Conference of Institutes related to Electrical, Electronics, and Information Engineering in Hokuriku Area
  - Sponsored together with IEEJ Hokuriku Branch, IEICE Hokuriku, IPSJ Hokuriku Branch, ITE Hokuriku, IEIJ Hokuriku, SICE Hokuriku, IEIEJ Chubu, ASJ (Acoustical Society of Japan) Hokuriku Chapter, and JSMBE (Japanese Society for Medical and Biological Engineering) Hokuriku
- **Cooperation Activities**

Several activities such as lectures, symposiums, and meetings organized by local national societies, e.g., IEICE Tokai, IPSJ Tokai Branch, SOFT (Japan Society for Fuzzy Theory and Intelligent Informatics) Tokai Branch, are held in cooperation with IEEE Nagoya Section.
- Benefit to IEEE members (for example discounts, access to technical information etc.)
  - Discounts of registration fees
  - Access to technical information
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)
  - Help in membership development by distributing the IEEE membership recruitment brochures to attendees.
  - Cost saving by cooperation.
  - Improvement of IEEE's familiarity

### **C3. Collaboration with other IEEE Sections**

- Support extended to neighboring Sections
  - IEEE Nagoya Section collaborates with the other IEEE Sections in Japan through IEEE Japan Council (JC).
- Joint activities with any other Section
  - Nagoya Section Young Professionals (YP) Affinity Group is co-organizing Career Building Essay Contest with IEEE Japan Council (JC), Tokyo Section YP, Kansai Section YP and WIE Affinity Groups.
  - Nagoya Section Women In Engineering (WIE) organized a online meeting with other WIE.
  - Nagoya Section Student Branch (SB) is collaborating with Student Branch of other sections joining SBLTW.

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

- Support extended for organizing technical, educational, and professional activities.
  - Several activities organized by society chapters within IEEE Nagoya Section are financially supported by IEEE Nagoya Section.
- Joint activities for membership development
  - When the above activities are held, announcement of cooperation with IEEE Nagoya Section is made by the society chapters.

- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section.

○ None.

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

○ None.

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

- Fortunately, IEEE has been holding a good status of membership retention. However, many national societies are facing the decrease of members these years.

**PART D - GOALS AND PLANS**

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

- Enhancing the activities of Student Branches.
- Increasing the membership.
- Nominations of members for Senior Member and Fellow of the Institute.
- Organizing technical lectures and symposium, workshops on topics of interest, in some cases in collaborations with other institutes.
- Providing better services to the members.
- Supporting activities of young members.

**D.2 Goals and Future Plans**

- Establishing joint chapters
- Establishing new chapters
- Establishing new student branches
- Application for IEEE Milestone

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

○ None.

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

○ None.