

# IEEE Bangladesh Section Report 2019

## PART A - SECTION SUMMARY

### A.1 Executive Summary –

#### Section Executive Committee 2020

Full Name	Position	Affiliation--Position and name of University/Institute/Company/Industry
Dr. Celia Shahnaz	Chair	Professor, Dept of EEE, BUET
M. Moshiul Hoque	Vice Chair (Technical)	Professor, Chittagong University of Engineering & Technology (CUET)
Md Abdur Rahman	Vice Chair (Activity)	Professor and Associate Dean, Faculty of Engineering, AIUB
Raihan Ur Rashid	Secretary	Executive, Spectrum Engineering Consortium Limited
Yeasir Arafat	Treasurer	Associate Professor, Department of Electrical and Electronic Engineering (EEE), Bangladesh University of Engineering and Technology (BUET)
Dr. Shaikh Anowarul Fattah	Nominations and Appointments Chair	Professor, EEE, BUET and Chair, IEEE Bangladesh Section 2015-2016
Anamika Bhakta	Industrial Activity Coordinator	Vice President, Robi Axiata Ltd., Chair, WIE AG, IEEE BDS
MD. ABDUR RAZZAK	Conference Coordinator	PROFESSOR, INDEPENDENT UNIVERSITY, BANGLADESH
Shams Shad Islam Khan	Professional Activity Coordinator	Product Delivery Engineer, CodeMarshal IT Systems Ltd.
Redwan Ferdous	Publicity Coordinator	Lead Engineer & Coordinator, Cellphone Manufacturing Factory, Aamra Holdings Ltd.
Md Zunaid Baten	Awards Coordinator	Assistant Professor, Dept of EEE, BUET
S.M.Saiduzzaman	Newsletter Editor	Lecturer, Southeast University
Dr. Md. Faruk Hossain	Membership Development Coordinator	Professor, EEE, RUET
Prof. Dr. A. B. M. Aowlad Hossain	Educational Activity Coordinator	Professor, Department of Electronics and Communication Engineering, Khulna University of Engineering & Technology
A N M Nasimunnabi	Humanitarian Activity Coordinator	Senior Manager, Shakti Engineering Ltd.
Abul Al Arabi	Student Activity Coordinator	Lecturer, Northern University Bangladesh

## Section Highlights

- Established in 1993
- Number of Student Branches: 50
- 9 Technical Society Chapters
- Total Society Student Branch Chapter: 42
- 2 Affinity Groups (YP, WIE)
- 3 SIGHT Groups (Section SIGHT Flash, DU SB SIGHT, BRACU SB SIGHT)
- Total Member at the end of 2019: 3715
- Total Student Member at the end of 2019: 2472
- Total Senior Member at the end of 2019: 60
- Globally among the top 5 countries for student member besides India, China, USA and Canada.
- Recipient of IEEE MGA Outstanding Large Section Award 2018
- Received 4000 USD R10 Section Incentive Award for the activities held from November 2018 to October 2019.
- Organizer of IEEE Region 10 Symposium (TENSYP) 2020.

### Major Events (International, National)

Event	Date	Venue
Campaign for Smart City in Bangladesh	May 30, 2019	Robi Corporate Headquarter
Smart City Initiatives in Bangladesh	September 22-24, 2019	IEB Council Hall, Dhaka
IEEE Bangladesh Section Industry Forum 2019	November 29, 2019	FARS Hotel and Resorts
R10 EAC Challenge: Engineers Educate Future Engineers (EEFE)	19 December 2019	Chalaband Government Primary School
R10 Funded Individual Benefit Services (IBS): IEEE Student Training Program	19 December 2019	Southeast University, Bangladesh
IEEE Bangladesh Section SYWM Congress 2019	25 December 2019	Grameenphone Corporate Office
IEEE Bangladesh Section Award Night and Gala Dinner	25 December 2019	Grameenphone Corporate Office
IEEE Bangladesh Section Vitality Enhancement Event Series	Throughout the year	10 IEEE Student Branches

**Major Chapter Activities (In Collaboration with Section)**

<b>Chapter</b>	<b>Event</b>	<b>Date</b>	<b>Venue</b>
IEEE SPS BD Chapter	IEEE SPS Winter School on Multimodal Signal Processing	Nov 28 - Dec 01 - 2019	FARS Hotel & Resorts, Dhaka
	2019 IEEE International Conference on Signal Processing, Information, Communication & Systems (IEEE SPICSCON 2019)	Nov 28-30 - 2019	FARS Hotel & Resort Dhaka
	IEEE SPS Distinguished Lecturer Program	18-Dec-19	Bangladesh University of Engineering & Technology (BUET)
IEEE SSIT BD Chapter	International Symposium on Social Implication of Technology	1 December 2019	Fars Hotel & Resorts, Dhaka
IEEE EMBS BD Chapter	2019 IEEE International Conference on Biomedical Engineering, Computer and Information Technology for Health (BECITHCON)	Nov 28-30 - 2019	FARS Hotel & Resort Dhaka
	IEEE EMBS Bangladesh Chapter Distinguished Lecturer Talk Event	November 28, 2019	AIUB
IEEE IAS BD Chapter	2019 IEEE International Conference on Power, Electrical, Electronics and Industrial Applications (PEEIACON)	Nov 29-Dec 1, 2019	Fars Hotel & Resorts, Dhaka
	IEEE IAS Distinguished Lecture Program: Flux Modulation Machines	1-Dec-2019	Bangladesh University of Engineering & Technology (BUET)
IEEE RAS BD Chapter	IEEE International Conference on Robotics, Automation, Artificial-Intelligence and Internet-of-Things 2019	Nov 29th - Dec 1st, 2019	FARS Hotel & Resort
	IEEE RAS HACKATHON – CyberPhysical	29-30 November, 2019	FARS Hotel & Resort, Dhaka
	RAS Robotics Competition	3-5 May, 2019	East West University, Dhaka

## Major Student and Affinity Group Activities

### Major Student Activities

Event	Date	Venue
Student Branch ExCom' and Counselors' Summit 2019	March 29, 2019	Asia Hotel and Resort
IEEE Bangladesh Section Joint SB Initiative 2019	13 September, 2019	BUET

### Major WIE Activities

Event	Date	Venue
WIECON-ECE 2019	15-16 Nov 2019	Bangalore, India
IEEE HAC Funded Women to Women Empowerment Challenge (W2WEC)	30 Nov 2019	Fars Hotel and Resort, Dhaka
Energypac Industrial Visit	12 November 2019	Energypac Industrial Area

## Awards

Serial	Award Name	Recipient	Recipient Affiliation (2019)	Awarding Organization
1	R10 Humanitarian Technology Activities Outstanding Volunteer Award 2019	Prof. Dr. Celia Shahnaz	Chair, IEEE Bangladesh Section	IEEE Region 10 (R10)
2	IEEE Darrel Chong Student Activity Award	IEEE Bangladesh University of Engineering and Technology (BUET) Student Branch	IEEE Bangladesh Section	IEEE MGA
3	IEEE Regional Exemplary Student Branch Award 2019	- American International University Bangladesh - Bangladesh University of Engineering and Technology - North South University	IEEE Bangladesh Section	IEEE MGA

## A.2 Financial Report

### IEEE- Bangladesh Section

#### Financial Statement

January 1, 2019 to December 31, 2019

Particulars	BDT	
	Dr	Cr.
Opening Balance at Bank	-	10193.00
Opening Balance Cash in Hand	-	103649.00
Receivable (Sponsorship)	-	150000.00
Grant & Registrations	-	6011832.00
<b>Total Cash in flow</b>		<b>6275674.00</b>
Total Expenditure	5,509,420.00	0.00
Seed Money IEEE 10 Symp	400,000.00	0.00
Loan & Advanced -AGM 2020	150,000.00	0.00
Loan Paid to IEEE R 10 HTC 2019	200,000.00	0.00
Closing Balance at Bank	8,820.00	0.00
Closing Balance Cash in Hand	7,434.00	0.00
<b>Total Cash out flow</b>	<b>6,275,674.00</b>	<b>0.00</b>

**IEEE-Bangladesh Section**  
**Income Statement**  
**1 January 2019 to 31 December 2019**

<b>No.</b>	<b>Date</b>	<b>Particulars</b>	<b>Transaction Type</b>	<b>Amount</b>
1	25-Jan-2019	IEEE Transfer from BDS Custody Account	Wire Transfer	790,400.00
2	16-Apr-2019	IEEE Transfer from BDS Custody Account	Wire Transfer	794,200.00
3	12-Jun-2019	IEEE Transfer from BDS Custody Account	Wire Transfer	795,625.00
4	25-Jul-2019	IEEE Transfer from BDS Custody Account	Wire Transfer	795,625.00
5	12-Nov-2019	IEEE Transfer from BDS Custody Account	Wire Transfer	798,950.00
6	25-Nov-2019	IEEE Transfer from Global Fund for Winter School	Wire Transfer	420,500.00
7	27-Nov-2019	Winter School Registration Fee	Wire Transfer	2,522.00
8	8-Dec-2019	IEEE Transfer from BDS Custody Account	Wire Transfer	799,900.00
9	8-Dec-2019	PEEIACON Registration Fee	Wire Transfer	8,588.00
10	9-Dec-2019	PEEIACON Registration Fee	Wire Transfer	7,577.00
11	30-Dec-2019	Winter School Registration Fee	Cash	155,945.00
12	30-Dec-2019	BECITHCON Registration Fee	Cheque	149,000.00
13	30-Dec-2019	PEEIACON Registration Fee	Cheque	153,000.00
14	30-Dec-2019	RAAICON Registration Fee	Cheque	198,000.00
15	30-Dec-2019	SPICSCON Registration Fee	Cheque	142,000.00
<b>Total</b>				<b>6,011,832.00</b>

**IEEE - Bangladesh Section**  
**Expenditure Statement**  
**1 January 2019 to 31 December 2019**

<b>No.</b>	<b>Purpose</b>	<b>Amount</b>
1	Section Activity	631,364.00
2	Section Vitality Enhancement Event Series	40,452.00
3	Section Excom Meeting	11,050.00
4	Section Conferences Activity	176,269.00
5	Section Student Activity Committee Activity	110,730.00
6	Section Humanitarian Activity Committee Activity	65,670.00
7	Women in Engineering Affinity Group Activity	34,413.00
8	Young Professionals AG Activity	160,866.00
9	Section Society Chapters Activity	209,962.00
10	IEEE Student Branch Rebate and Reimbursement Distribution	1,395,824.00
11	Section Office Assistant Salary	116,500.00
12	Section Office Stationary Expenses	37,950.00
13	Section Industrial and Professional Activity	400,324.00
14	IEEE BDS SYWMC 2019	210,211.00
15	Collocated Conferences (BECITHCON, SPICSCON, RAAICON, PEEIACON, SympSIST, IEEE SPS Winter School, W2WEC, RAS Hackathon, IEEE BDS Industry Forum)	1,736,049.00
16	Demystifying Nuclear Reimbursement	168,400.00
17	Bank Charge	3,586.00
	<b>Total</b>	<b>5,509,420.00</b>

## **PART B - ORGANIZATIONAL ACTIVITIES**

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

#### **Total number of active members in the past 3 years**

<b>Higher Grade Member</b>			<b>Student Member</b>			<b>Total Member</b>		
<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
984	1065	1243	2153	2370	2472	3137	3435	3715

- In 2019, IEEE Bangladesh Section has been awarded **2019 Outstanding Section Membership Recruitment Performance** recognition.
- During 2019 membership year IEEE Bangladesh Section have earned an award of 500 USD in the **IEEE Member-Get-a-Member (MGM)** program for having a volunteer who is the **first-place recruiter in the Asia Pacific Region**.

**This year we introduced a new concept of events called IEEE Bangladesh Section Vitality Enhancement Event Series where we took membership development sessions along with technical society sessions. The events were:**

1. IEEE Bangladesh Section Vitality Enhancement Event Series at United International University on July 20, 2019
2. IEEE Bangladesh Section Vitality Enhancement Event Series at Ahsanullah University of Science and Technology on July 20, 2019
3. IEEE Bangladesh Section Vitality Enhancement Event Series at Independent University, Bangladesh on July 27, 2019
4. IEEE Bangladesh Section Vitality Enhancement Event Series at Institute of Science, Trade and Technology on July 27, 2019
5. IEEE Bangladesh Section Vitality Enhancement Event Series at Stamford University Bangladesh on 31 August 2019
6. IEEE Bangladesh Section Vitality Enhancement Event Series at Bangladesh University of Professionals on 7 September 2019
7. IEEE Bangladesh Section Vitality Enhancement Event Series at University of Dhaka on 7 September 2019
8. IEEE Bangladesh Section Vitality Enhancement Event Series at Uttara University on 7 December 2019
9. IEEE Bangladesh Section Vitality Enhancement Event Series at Bangladesh University on 15 November 2019
10. IEEE Bangladesh Section Vitality Enhancement Event Series at North South University on 23 November 2019



## B.2 Chapter Activities

- Total number of Chapters in the Section: 9
- Number of Chapters formed in the current year: 0
- Number of active Chapters: 9
- Summary of Chapter activities (Chapter wise with attachment table/information)

Society Name	Number of Activities in 2019
CH10374-Joint Chapter: Electron Device Society (ED15) and Solid-State Circuit (SSC37)	5
CH10557: Communications Society (COM19)	1
CH10197: Power and Energy Society (PE31)	7
CH10749: Engineering in Medicine and Biology Society (EMB18)	20
CH10843: Industry Applications Society (IA34)	17
CH10829: Robotics and Automation Society (RA 24)	18
CH10844: Society on Social Implications of Technology (SIT30)	13
CH10813: Computer Society (C16)	
CH10830: Signal Processing Society (SP01)	19

<b>IEEE Society for Social Implication of Technology Bangladesh Chapter</b>			
SN	Event Name	Date	Venue
1	Chapter AGM	27-Feb-19	ECE Building, BUET
2	Technical Talk on "Social Impact Assessment of Humanitarian Technology Projects"	29-Mar-19	Asia Hotel and Resorts
3	Technical Talk on "Sustainable Development Projects" at World Health Day Celebration	07-Apr-19	ECE Building, BUET
4	Interactive Forum: IEEE SSIT BD Chapter	22-Apr-19	Chef's Table, Gulshan, Dhaka
5	Celebrating 50 years of Conquering Moon: Research & Innovation Opportunities	20-Jul-19	ECE Building, BUET
6	Ex-com's meeting prior to SPAC 2019	20-Jul-19	ECE Building, BUET
7	Ex-com's meeting prior to YESIST12	21-Jul-19	ECE Building, BUET
8	IEEE YESIST12 Innovation Challenge 2019, Bangladesh pilot round	27-Jul-19	Asia Hotel and Resorts
9	Technical Talk on "Insights on SROI: IEEE HAC"	02-Aug-19	Recreation Hall, NSU
10	Technical Talk on "Enhancement of Technical Research through Social Engagement"	02-Aug-19	Recreation Hall, NSU
11	Technical talk on "Social Impact Assessment of Humanitarian Technology Projects"	13-Sep-19	ECE Building, BUET
12	Ex-com's meeting prior to SympSIST'19	14-Nov-19	ECE Building, BUET
13	SympSIST (International Symposium on Social Implications of Sustainable Technology) 2019	01-Dec-19	Fars Hotel and Resorts

<b>IEEE Signal Processing Society Bangladesh Chapter</b>			
<b>SN</b>	<b>Event Title</b>	<b>Date</b>	<b>Venue</b>
<b>1</b>	Chapter AGM	February 24, 2019	Bangladesh University of Engineering & Technology (BUET)
<b>2</b>	Invited Talk on “Audio visual emotion recognition using cross-correlation and wavelet packet domain features” at ECCE 2019	February 8, 2019	Chittagong University of Engineering & Technology (CUET)
<b>3</b>	Keynote on “Multimodal Emotion Recognition” at ICASERT 2019	May 4, 2019	East West University (EWU)
<b>4</b>	ExCom Meeting 1	July 10, 2019	Bangladesh University of Engineering & Technology (BUET)
<b>5</b>	IEEE BDS Society Vitality Event at UIU: IEEE SPS Session	July 20, 2019	United International University (UIU)
<b>6</b>	IEEE BDS Society Vitality Event at IUB: IEEE SPS Session	July 27, 2019	Independent University Bangladesh (IUB)
<b>7</b>	Technical Talk “Convolutional Coding for Distributed Matrix Computation”	July 29, 2019	Bangladesh University of Engineering & Technology (BUET)
<b>8</b>	IEEE BDS Society Vitality Event at Stamford University: IEEE SPS Session	August 31, 2019	Stamford University
<b>9</b>	ExCom Meeting 2 on IEEE SPS Winter School	September 2, 2019	Bangladesh University of Engineering & Technology (BUET)
<b>10</b>	IEEE BDS Society Vitality Event at Dhaka University: IEEE SPS Session	September 7, 2019	Dhaka University
<b>11</b>	ExCom Meeting 3 on IEEE SPICSCON 2019	September 20, 2019	Bangladesh University of Engineering & Technology (BUET)
<b>12</b>	Keynote on “A Customized Deep Neural Network Approach for Bangla Handwritten Digit Recognition” at ICBSLP 2019	September 27, 2019	Shahjalal University of Engineering & Technology (SUST)
<b>13</b>	Invited Talk on “Image-based Bengali Sign Language Alphabet Recognition for Deaf and Dumb Community” at ICBSLP 2019	September 28, 2019	Shahjalal University of Engineering & Technology (SUST)
<b>14</b>	IEEE SPS Funded IEEE SPS Winter School 2019 on Multimodal Signal Processing	November 28, 2019 - December 01, 2019	Bangladesh University of Engineering & Technology (BUET)
<b>15</b>	2019 IEEE International Conference on Signal Processing, Information, Communication & Systems (IEEE SPICSCON 2019)	November 28-30, 2019	FARS Hotel & Resort Dhaka

<b>16</b>	IEEE Signal Processing Society Session at IEEE BDS Industry Forum 2019 funded by R10	November 29, 2019	FARS Hotel & Resort Dhaka
<b>17</b>	IEEE SPS Distinguished Lecturer Program	December 18, 2019	Bangladesh University of Engineering & Technology (BUET)
<b>18</b>	IEEE Signal Processing Society Session at IEEE Bangladesh Section SWYM Congress 2019	December 25, 2019	GP House, Dhaka
<b>19</b>	Invited Talk on “Autoregressive Modeling of PCG for Person Identification” at ICECTE 2019	December 26, 2019	Rajshahi University of Engineering & Technology (RUET)

<b>IEEE Industry Application Society Bangladesh Chapter</b>			
<b>SN</b>	<b>Event Title</b>	<b>Date</b>	<b>Venue</b>
1	Chapter AGM	February 25, 2019	Bangladesh University of Engineering & Technology (BUET)
2	Augmentation Initiative In Semiconductor Design And Next Gen VLSI	February 13, 2019	Hotel Intercontinental
3	Campaign for Smart City in Bangladesh	May 30, 2019	Robi Axiata Limited
4	ExCom Meeting 1	July 11, 2019	Bangladesh University of Engineering & Technology (BUET)
5	IEEE Bangladesh Section Society Vitality Event at Ahsanullah University of Science & Technology	July 20, 2019	Ahsanullah University of Science & Technology
6	Discussion on Fire Safety Management and Accident Prevention	August 3, 2019	Bangladesh University of Engineering & Technology (BUET)
7	IEEE Bangladesh Section Society Vitality Event at ISTT	August 3, 2019	ISTT
8	WORKSHOP ON RISC-V TECHNOLOGY AND SiFive TUTORIAL	August 31, 2019	Bangladesh University of Engineering & Technology (BUET)
9	ExCom Meeting 2	September 3, 2019	Bangladesh University of Engineering & Technology (BUET)
10	IEEE Bangladesh Section Society Vitality Event at Bangladesh University of Professionals (BUP)	September 7, 2019	Bangladesh University of Professionals (BUP)
11	Technical Talk on Demystifying Nuclear Power Technology at IEEE Joint SB Initiative	September 13, 2019	Bangladesh University of Engineering & Technology (BUET)
12	ExCom Meeting 3 on IEEEPEEIACON 2019	September 20, 2019	Bangladesh University of Engineering & Technology (BUET)

13	Smart City Initiatives in Bangladesh	September 24-25, 2019	IEB Convention Hall
14	Technical Talk on Demystifying Nuclear Power at ICBSLP 2019	September 27, 2019	Shahjalal University of Engineering & Technology (SUST)
15	2019 IEEE International Conference on Power, Electrical, Electronics and Industrial Applications (PEEIACON)	November 29-December 1, 2019	Fars Hotel & Resort
16	IEEE IAS Distinguished Lecture Program: Flux Modulation Machines	December 1, 2019	Bangladesh University of Engineering & Technology (BUET)
17	IEEE Bangladesh Section Annual Congress: IEEE Industrial Applications Society Research Outreach Program	December 25, 2019	GP House, Dhaka

<b>IEEE Engineering in Medicine and Biology Society Bangladesh Chapter</b>			
<b>SN</b>	<b>Event</b>	<b>Start Time</b>	<b>Place</b>
1	Chapter AGM	February 24, 2019	Bangladesh University of Engineering & Technology (BUET)
2	Keynote Talk in ECCE 2019	February 7, 2019	CUET
3	Keynote Talk in ICASERT 2019	May 3, 2019	East West University
4	A technical talk on "Bio Inspired Sensors & IoT: Challenges & Opportunities"	May 15, 2019	BUET
5	Invited Talk in IC4ME2 2019	July 11, 2019	Rajshahi University
6	ExCom Meeting 1	July 17, 2019	Bangladesh University of Engineering & Technology (BUET)
7	IEEE EMBS Vitality Enhancement Event	July 20, 2019	UIU, Dhaka
8	IEEE EMBS Vitality Enhancement Event	July 27, 2019	IUB, Dhaka
9	IEEE EMBS Vitality Enhancement Event	August 31, 2019	Stamford University
10	ExCom Meeting 2	September 3, 2019	Bangladesh University of Engineering & Technology (BUET)
11	IEEE EMBS Vitality Enhancement Event	September 7, 2019	Dhaka University
12	ExCom Meeting 3 on IEEE BECITHCON 2019	September 20, 2019	Bangladesh University of Engineering & Technology (BUET)
13	Invited Talk in ICAEE 2019	September 27, 2019	IUB, Dhaka
14	IEEE BECITHCON 2019	November 28-30, 2019	FARS Hotel and Resorts, Dhaka

15	IEEE EMBS Bangladesh Chapter Distinguished Lecturer Talk Event	November 28, 2019	AIUB
16	Keynote Talk in EICT 2019	December 21, 2019	KUET
17	Invited Talk in EICT 2019	December 21, 2019	KEUT
18	Invited Talk in STI 2019	December 24, 2019	Green University
19	IEEE Bangladesh Section Annual Congress	December 25, 2019	GP House, Dhaka
20	Invited Talk in ICCIT 2019	December 18, 2109	South East University

<b>IEEE Robotics and Automation Bangladesh Chapter</b>			
<b>SN</b>	<b>Event Title</b>	<b>Date</b>	<b>Venue</b>
1	Chapter AGM	February 25, 2019	Bangladesh University of Engineering & Technology (BUET)
2	Introduction to Image Processing -Workshop	May 3, 2019	International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT) 2019
3	RAS Robotics Competition	May 3-5, 2019	International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT) 2019
4	ExCom Meeting 1	July 15, 2019	Bangladesh University of Engineering & Technology (BUET)
5	IEEE Bangladesh Section Vitality Enhancement Event	July 20, 2019	Ahsanullah University of Science & Technology
6	Robotics for 4th Industrial Revolution	August 2, 2019	North South University, Bangladesh
7	IEEE Bangladesh Section Vitality Enhancement Event	August 3, 2019	Institute of Science, Trade and Technology
8	ExCom Meeting 2	September 3, 2019	Bangladesh University of Engineering & Technology (BUET)
9	IEEE Bangladesh Section Vitality Enhancement Event	September 7, 2019	Bangladesh University of Professionals
10	Joint SB Initiative	September 13, 2019	Bangladesh University of Engineering & Technology
11	ExCom Meeting 3 on IEEE RAAICON 2019	September 20, 2019	Bangladesh University of Engineering & Technology (BUET)
12	IEEE DAY Celebration 2019	October 11, 2019	Ahsanullah University of Science & Technology
13	IEEE Day Celebration 2019 Robotics & Research Aspects	October 27, 2019	University of Asia Pacific

14	Seminar on Control of Networked and Multirobot System	November 21, 2019	Independent University of Bangladesh
15	IEEE International Conference on Robotics, Automation, Artificial-Intelligence and Internet-of-Things 2019	Nov 29th - Dec 1st, 2019	FARS Hotel & Resort
16	IEEE RAS HACKATHON – CyberPhysical	November 29-30, 2019	FARS Hotel & Resort
17	Unmanned Robot for Humanitarian Applications	December 23, 2019	International Conference on Innovation in Engineering and Technology (ICIET) 2019, DU
18	Training on motor driving for robotics applications on IEEE SYWM Congress 2019	December 25, 2019	GP House, Dhaka

### 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

#### Conferences Organized

Conference Name	Co-organizer	Venue	Date
5th IEEE international Women in Engineering (WIE) Conference on Electrical and Computer Engineering 2019 (IEEE WIECON-ECE 2019)	IEEE Bangalore Section, IEEE WIE AG Bangladesh Section, IEEE WIE AG Bangalore Section	Sterlings Mac Hotel, Bengaluru, India	15-16 November 2019
2019 IEEE International Conference on Signal Processing, Information, Communication & Systems (IEEE SPICSCON 2019)	IEEE SPS Bangladesh Chapter	FARS Hotel & Resort, Dhaka	Nov 28-30 - 2019
2019 IEEE International Conference on Power, Electrical, Electronics and Industrial Applications (PEEIACON)	IEEE IAS, IEEE IAS Bangladesh Chapter	FARS Hotel & Resort, Dhaka	Nov 29-Dec 1, 2019
IEEE International Conference on Robotics, Automation, Artificial-Intelligence and Internet-of-Things (RAAICON) 2019	IEEE RAS Bangladesh Chapter	FARS Hotel & Resort, Dhaka	Nov 29-Dec 1, 2019
2019 IEEE International Conference on Biomedical Engineering, Computer and Information Technology for Health (BECITHCON)	IEEE EMBS BD Chapter	FARS Hotel & Resort, Dhaka	Nov 28-30 - 2019

### Technical Co-Sponsored Conferences

Conference Name	Organizer
International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST)	American International University- Bangladesh (AIUB)
2nd International Conference on Electrical, Computer and Communication Engineering (ECCE 2019)	Chittagong University of Engineering and Technology (CUET)
1st International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT-2019)	East West University
2nd International Conference on Bangla Speech and Language Processing	Shahjalal University of Science and Technology
The 5th International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2)	University of Rajshahi
International Conference on Advances in Electrical Engineering (ICAEE)	Independent University, Bangladesh
2019 22nd International Conference on Computer and Information Technology (ICCIT)	Southeast University
2019 4th International Conference on Electrical Information and Communication Technology (EICT)	Khulna University of Engineering & Technology
2019 2nd International Conference on Innovation in Engineering and Technology (ICIET)	University of Dhaka
2019 International Conference on Sustainable Technologies for Industry 4.0 (STI)	Green University of Bangladesh
2019 3rd International Conference on Electrical, Computer & Telecommunication Engineering (ICECTE)	Rajshahi University of Engineering & Technology

### Distinguished Lecture

Event Name	DL Name	Venue	Date
IEEE IAS Distinguished Lecture Program: Flux Modulation Machines	Dr. Ronghai Qu	Bangladesh University of Engineering & Technology (BUET)	1-Dec-19
IEEE SPS Distinguished Lecturer Program	Dr. Anna Scaglione	Bangladesh University of Engineering & Technology (BUET)	18-Dec-2019
IEEE SPS Distinguished Lecturer Program	Dr. V R Singh	American International University of Bangladesh	30 Nov 2019

### Workshop and Seminars

Event	Date	Venue
Seminar on Bio inspired Sensors and IOT: Challenges and Opportunities	May 15, 2019	BUET
Demystifying Nuclear Importance of Nuclear Power in Context of Bangladesh	September 27, 2019	Shahjalal University of Science and Technology

Seminar on Bio inspired Sensors and IOT: Challenges and Opportunities	May 15, 2019	Bangladesh University of Engineering And Technology
Seminar title "Lightning Protection System Design for Structures: Challenging Issues	15th April 2019	Leading University, Sylhet
Technical session on 'Leveraging Technology for Humanity through IEEE Engagement'	February 8, 2019	Cox's Bazar, Chattogram
IEEE AIUB Student Branch Presents "Student Professional Awareness Venture (SPACE 3.0)"	1 December, 2019	American International University of Bangladesh
Academic Exchange and Professional networking at RUET	July 11, 2019	RUET

#### B.4 Students Activities

- Total Number of Student Branches in the Section: 50
- Number of Student Branches formed in the current year: 12

#### Section level student activities

Event	Date	Venue
Student Branch ExCom' and Counselors' Summit 2019	March 29, 2019	Asia Hotel and Resort
IEEE Bangladesh Section Joint SB Initiative 2019	13 September, 2019	BUET

#### Awards

Award Name	Recipient
IEEE Bangladesh Section Best Student Branch Award	<b>Winner:</b> IEEE BUET Student Branch and IEEE North South Student Branch <b>Honorable Mention:</b> IEEE AIUB Student Branch
IEEE Bangladesh Section Best Student Volunteer Award	<b>Winner:</b> Satyaki Banik from IEEE BUET Student Branch <b>Honorable Mention:</b> Asma Arisha from IEEE NSU Student Branch & Nur Mohammad Antor from IEEE AUST Student Branch.
IEEE Bangladesh Section Best Promising Student Branch	IEEE Varendra University Student Branch & IEEE IU Student Branch
IEEE Bangladesh Section Best Student Branch Counselor	Dr. Mohammad Hasan Imam, Counselor, IEEE AIUB Student Branch
IEEE Bangladesh Section Best Humanitarian Student Volunteer	Shakil Anwar from IEEE BUET Student Branch

- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)  
Number of Student Branches who got rebate for 2019: 27  
Number of Student Branches who reported activities but did not get rebate: 16  
Number of Student Branches in probation, but improving: 7



- Summary of Student Branch activities (Student Branch wise with attachment table/information)  
Summary link: <https://bit.ly/2PkYoBv>  
Report Link:  
<https://drive.google.com/drive/folders/1ScjXuBINFvDvGcXI2YyOIBXHifgtWUBv?usp=sharing>

## B.5 Affinity Group Activities

### Young Professional (YP)

SN	Event Title	Date	Venue
1	PES Day Celebration & Workshop on PCB Design	28-Apr-19	Stamford University
2	IEEE Student Professional Awareness Conference 2019	2nd August 2019	North South University, Dhaka
3	Focus on Finding Your Strength In Yourself	06-Sep-19	Rajshahi University of Engineering & Technology
4	IEEE Student Branch Action Plan Creation: Collaboration with YP	29-Sep-19	Varendra University, Rajshahi
5	IEEE Day Celebration 2019	1-Oct-19	Rajshahi University of Engineering and Technology (RUET)
6	Workshop on Cyber Security	2-Nov-19	Stamford University
7	Workshop on Plasmonic Sensors	06-Nov-19	Rajshahi University of Engineering and Technology (RUET)
8	IEEE Student Professional Awareness Workshop 2.0	9-Nov-19	American International University, Dhaka
9	IEEE Step '19- Elevation Towards the Future	15-Nov-19	North South University, Dhaka
10	Microwave Transmission in Telecommunications	04-Dec-19	American International University - Bangladesh (AIUB), Dhaka
11	IEEE Student Professional Awareness Venture (SPAVe) 4.0	28-Dec-19	American International University - Bangladesh (AIUB), Dhaka

### Women In Engineering (WIE)

Serial Number	Event Name	Date	Venue
1	WIE-BD AGM	16 Feb 19	BUET
2	International Women's Day Celebration	8 Mar 19	Hotel Asia

3	World Health Day Celebration	7 Apr 19	BUET
4	IEEE PES Day	27 Apr 19	BUET
5	Girls in ICT Day	28 Apr 19	BUET
6	ICASERT'19 WePower Track	4 May 19	EWU
7	Meet the Media and Iftar	25 May 19	BUET
8	Workshop on Graphics Design	27 July 10	NSU
9	Discussion on Fire Safety	3 Aug 19	BUET
10	Research Prospects in Biomedical Signal Processing and 5G Communication	4 Aug 19	AUST
11	WePower Track at ICAEE	26 Sep 19	IUB
12	Seminar on Networked Control of Multi-Robot Systems	1 Oct 19	EWU
13	Applications of Biomedical Engineering	2 Aug 19	ISTT
14	WIECON-ECE 2019	15-16 Nov 19	Bangalore, India
15	Multirobot Control Seminar	17 Nov 19	Uttara University
16	Multirobot Control Seminar	18 Nov 19	IUB
17	IEEE HAC Funded Women to Women Empowerment Challenge (W2WEC)	30 Nov 19	Fars Hotel
18	IEEE SYWM Congress 2019	25 Dec 19	GP House
19	Energypac Industrial Visit	12 November	Energypac Industrial Area
20	Outreach Program in BUET Girls School	11November	BUET Girls School

21	Outreach Program in BUET Girls College	13 November	BUET Girls College
22	WePower session at SPAW 2019	9 November	AIUB
23	WePower session at STEP 2019	15 November	North South University
24	One to one mentorship program under WePower	12 November	BUET
25	Wepower webinar	6 December	
26	WePower Webinar	20 December	
27	Wepower Session at IEEE PEEIACON 2019	30 November	Fars Hotel

- **Life Member (LM)**  
- We do not have sufficient Life Member to form Life Member AG.

## B.6 Awards & Recognition Activities

### Award constituted by the Section

Award Name	Recipient
IEEE Bangladesh Section Best Student Branch Award	<b>Winner:</b> IEEE BUET Student Branch and IEEE North South Student Branch <b>Honorable Mention:</b> IEEE AIUB Student Branch
IEEE Bangladesh Section Best Student Volunteer Award	<b>Winner:</b> Satyaki Banik from IEEE BUET Student Branch <b>Honorable Mention:</b> Asma Arisha from IEEE NSU Student Branch & Nur Mohammad Antor from IEEE AUST Student Branch.
IEEE Bangladesh Section Best Promising Student Branch	IEEE Varendra University Student Branch & IEEE IU Student Branch
IEEE Bangladesh Section Best Student Branch Counselor	Dr. Mohammad Hasan Imam, Counselor, IEEE AIUB Student Branch
IEEE Bangladesh Section Best Humanitarian Student Volunteer	Shakil Anwar from IEEE BUET Student Branch

**List of all Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year**

Serial	Award Name	Recipient	Recipient Affiliation (2019)	Awarding Organization
1	R10 Humanitarian Technology Activities Outstanding Volunteer Award 2019	Prof. Dr. Celia Shahnaz	Chair, IEEE Bangladesh Section	IEEE Region 10 (R10)
2	IEEE Darrel Chong Student Activity Award	IEEE Bangladesh University of Engineering and Technology (BUET) Student Branch	IEEE Bangladesh Section	IEEE
3	IEEE Regional Exemplary Student Branch Award 2019	- American International University Bangladesh - Bangladesh University of Engineering and Technology - North South University	IEEE Bangladesh Section	IEEE Region 10 (R10)

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

- Newsletter (name and number of issues in the year)
  - **Name:** IEEE Bangladesh Section Newsletter
  - **Number of Issue in 2019:** 02
  - **Issue-1:**  
[https://drive.google.com/file/d/15ZGH\\_MFMUA4qeaEP\\_TP\\_UFjzy\\_TbD819/view?usp=sharing](https://drive.google.com/file/d/15ZGH_MFMUA4qeaEP_TP_UFjzy_TbD819/view?usp=sharing)
  - **Issue-2:**  
<https://drive.google.com/file/d/1mSwOsKgpKhOjUN30GdFRFqakJZxXFobm/view?usp=sharing>
- Home Page of the Section (give the URL and how often it is updated)
  - **URL:** [ieeebd.net](http://ieeebd.net)
  - **Frequency of Update:** Twice in every month. Special features or notices are updated immediately.
- Other means of contacts with Section members including social media

Serial	Address/ URL	Type
1	<a href="https://www.facebook.com/IEEEBangladeshSection/">https://www.facebook.com/IEEEBangladeshSection/</a>	Facebook Page
2	<a href="https://www.facebook.com/groups/ieee.bangladesh/">https://www.facebook.com/groups/ieee.bangladesh/</a>	Facebook Group

## B.8 Industry Relations

- **Membership growth and retention**

IEEE Grade: Member in 2018	IEEE Grade: Member in 2019	Growth Percentage in IEEE Member Grade
732	849	16%

- **Activities for/with industrial members**

Serial	Event Name	Date	Venue
1	Augmentation Initiative in Semiconductor Design and Next-gen VLSI	February 13th, 2019	Hotel Intercontinental Dhaka
2	Workshop on RISC-V Technology and SiFive Tutorial	August 31 <sup>st</sup> . 2019	Bangladesh University of Engineering & Technology (BUET)
3	IEEE Bangladesh Section Student/Young Professionals/Women in Engineering/Members' Congress 2020	25 December, 2019	Grameenphone Corporate Office

## B.9 Humanitarian Technology Activities

- Humanitarian Technology related activities supported by the Section including collaboration with other OUs.
- SIGHT Activities

Serial	Event Name	Date	Venue
1	IEEE YESIST12 Innovation Challenge 2019, Bangladesh Pilot Round	July 27 <sup>th</sup> , 2019	Asia Hotel & Resort
2	Technical Talk on "Social Impact Assessment of Humanitarian Technology Projects"	29-Mar-2019	Asia Hotel and Resorts
3	Technical Talk on "Insights on SROI: IEEE HAC"	02-Aug-2019	Recreation Hall, NSU
4	Technical talk on "Social Impact Assessment of Humanitarian Technology Projects"	13-Sep-2019	ECE Building, BUET
5	Technical Talk on "Enhancement of Technical Research through Social Engagement"	02-Aug-2019	Recreation Hall, NSU
6	Technical Talk on "Sustainable Development Projects" at World Health Day Celebration	07-Apr-2019	ECE Building, BUET

## B.10 Community Activities

### IEEE Social activities

Serial	Event Name	Date	Venue
1	IEEE Day Celebration	October 11th, 2019	Ahsanullah University of Science & Technology (AUST)
2	IEEE Bangladesh Section Meet the Media and Iftar	May 25th, 2019	Seminar room, BUET Auditorium Complex
3	IEEE Bangladesh Section Annual Dinner and Gala Night	25 December 2019	GP House
4	International Women's Day Celebration	8 Mar 2019	Hotel Asia
5	World Health Day Celebration	7 Apr 2019	BUET
6	IEEE PES Day	27 Apr 2019	BUET
7	Girls in ICT Day	28 Apr 2019	BUET

## **PART C - OTHERS**

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

- **IEEE SPS Funded IEEE SPS Winter School 2019 on Multimodal Signal Processing** Total number of participants 70, Total 11 Instructors from Industry and Academia from 5 different countries, Malaysia, India, USA, Uruguay and Bangladesh. Which is supported by IEEE global SPS membership board. It helped to reach SPS membership of Bangladesh chapter to 485 and encouraged many student branches to form SPS student branch chapter.
- **R10 funded Individual Benefit Services (IBS):** IEEE Bangladesh Section organized IEEE R10 Funded Individual Benefits Event “IEEE Student Training Program” on 19 December 2019 at Southeast University Bangladesh during the second day of 22nd International Conference on Computer and Information Technology (ICCIT), 2019. It helped south Asian student branch to be vibrant and encouraged many Non-IEEE members to become IEEE member.
- **R10 EAC Challenge: Engineers Educate Future Engineers (EEFE):** IEEE Bangladesh Section along with IEEE Bangladesh Section Educational Activities Committee organized an event on Fire Safety Awareness on 19 December 2019 at Chalaband Government Primary School.
- **IEEE HAC Funded Women to Women Empowerment Challenge (W2WEC)** IEEE Bangladesh Section (IEEE BDS) and IEEE Women in Engineering Affinity Group IEEE Bangladesh Section (WIE AG BDS) organized a day-long event designed to engage students and young professionals in the rigorous research, design, testing, and launch of technology-based social enterprises. The participants also created a strong network with successful entrepreneurs through this WIE platform which will aid them in the future.
- **Smart City Initiatives in Bangladesh**  
In Bangladesh, to take the Smart City initiatives what steps are expected to be taken from the tech companies, the stakeholder’s ideas and the policy makers were discussed in the Initiatives. Key personnel and representatives from more than 40 government and non-government organizations, institutions and industries attended the initiative. It has open up a new collaboration with IEEE Bangladesh Section and Dhaka North City Corporation (DNCC) It is an opportunity for IEEE members to be engaged in local community to solve problems with technology.

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

- Jointly organized Workshops on Demystifying Nuclear Power technology with Institute of Nuclear Power Engineering (INPE), BUET and funded by IEEE foundation.
- Collaboration with Bangladesh Hi-Tech Park Authority for Smart City Initiative.
- Collaboration with Access to information in Bangladesh (a2i) Program for Smart City Initiative.
- Collaboration with Dhaka North City Corporation(DNCC)
- Collaboration with Ulkasemi.
- Collaboration with Institute of Engineers Bangladesh (IEB) for Smart City Initiative

- Collaboration with World Bank and ADB for We Power initiatives.  
**Benefit to IEEE members:** Reduced/Free Registration fee to events, Training from the experts.  
**Benefit to Section:** Venue facilities, cost saving, membership development, future employment and internship opportunities for the members.

### C3. Collaboration with other IEEE Sections

- **IEEE YESIST12 Innovation Challenge 2019, Bangladesh Pilot Round**  
 In Bangladesh round total 23 teams participated and total number of students participated 120. In collaboration with Madras and Thailand Sections.
- **WIECON ECE 2019 collaboration with Bangalore section**  
 IEEE Women in Engineering (WIE) Affinity Group – Bangalore Section, IEEE Bangalore Section, IEEE Bangladesh Section & IEEE WIE Bangladesh Section successfully executed the 5th IEEE International WIE Conference on Electrical and Computer Engineering 2019 (IEEE WIECON-ECE 2019). The conference was held at Sterling’s Mac Hotel, Bangalore, India on 15-16 November 2019.

<https://wieconece.org/>

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

- Support extended for organizing technical, educational and professional activities
- Joint activities for membership development
- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section

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

#### Industry Engagement

Jointly organizing events with industries to increase the awareness and improve the professional member number. Also, working with various industries with related projects so that they can engage with IEEE activities.

#### Government Engagement

Engaging with various government ministries and organization so that they can get aware about the importance of IEEE activities and collaborating to match and progress the national goal and global IEEE vision.

#### NGO Engagement

Working with local NGOs to facilitate the need of community because various NGOs are specialized in providing the help to the community directly.

#### Engagement with Entrepreneurs

To help the entrepreneurs, IEEE Bangladesh Section has engaged Entrepreneurs with IEEE members to train and educate the future entrepreneurs of the country.



**Innovating membership Retention Programs:**

Counselling sessions for students with low CGPA, programs focusing industry requirements and skills to be developed, mandatory awareness and information exchange programs about student scholarships and travel grants, internships with industry and company, part-time campus technical and professional jobs can motivate students for retention of their membership from year to year.

**Designing Career lab:**

It will help guiding a student for proper choice of career (academia and industry) based on the information and interest provided by the students. Developing Web based information tool for higher study: based on the qualification (resume) and TOEFL/IELTS/GRE scores of the student. Arranging student competition in IEEE conferences as in ICASSP to boost up student membership as well as to ensure student participation in those conferences. Arranging student competition on IEEE New initiatives: for gathering brainstorming, ideas about possible funding applications to apply to IEEE NIPs making online education for disabled students accessible and affordable.

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

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

- Teacher in Service Program (TISP)
- IEEE WIECON-ECE 2020
- Distinguish Lecture Program
- Outreach Program for STEM Education

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

**Maintain and enhance the vibrant activities of IEEE Bangladesh Section in the following ways:**

- Launching new societies of Bangladesh Chapter, such as IEEE CIS, IEEE TEMS, IEEE AP-MTTS join chapter, IEEE PELS, IEEE NPSS.
- Enhancing activities of societies of Bangladesh chapter, such as IEEE SPS, IEEE RAS, IEEE SSIT and IEEE IAS.
- Launching of IEEE Senior member elevation Program in Bangladesh to support members and reviewers
- Implementing Engineering Projects in Community Service (EPICS) in IEEE
- Implementing projects funded by IEEE HAC, IEEE SIGHT, and IEEE Foundation
- Implementing the Teacher In-Service Program (TISP) under IEEE Pre-university Education.
- Inspire Society sponsored conferences from EMBS, RAS, SPS, IAS and SSIT.
- IEEE WIE NEW Initiative Program (WIENIP): IEEE WIECON-ECE, was held in Dhaka, Bangladesh, Dec 19- 20, 2015. Considering its mega success in south Asian countries in 2015, 2016, 2017, 2018 and 2019, in 2020 we will be organizing it with other IEEE Sections in R10.
- Arranging DL program: to energize inactive societies by presenting role models in front of them for sharing their views, exchange ideas and latest findings for EMBS, RAS, SPS, IAS and SSIT members
- Mentor and Mentee Program (MMP): MMP can be implanted via webinars, online chats, and Women in Leadership Collaborate (WIL) Community to guide less active/ inactive students/YP/ WIE groups about designing innovative events.

Future Programs at a glance –

- **WIECON-ECE 2020**
- **IEEE TENSYP 2020**
- **World Bank supported We Power Initiative**

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

- Strategy for sustainable membership: Design and conduct online survey and develop a student network to make strategies for sustainable membership. Registration benefit for an IEEE member in IEEE programs, webinars, tutorials, workshops, internships, skill development and

industry related programs, which will add value to membership, have to be funded/promoted as special events for the retention of membership

- Developing student Branch activation Program: Encourage student branches to update and report their activities by vtools. For inactive branches, web-based mentoring programs can be initiated, where active student branches will serve as mentors for energizing inactive branches.

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

Inspire Society activities and include them in the business plan

- IEEE SPS, EMBS, RAS, IAS and SSIT members engagement and membership development in Industry.
- Rising Star Conference for YP in Bangladesh
- World Bank supported WePower Initiative
- Industry Forum for Women in Engineering.
- Launching of Alumni Network connecting Bangladeshis abroad to support members education, employment, research and innovative activities.

#### **Financial Stability:**

Funds will be managed from local industries and registration fees to ensure each program to be self-sustainable.