ALIAH UNIVERSITY

West Bengal
India 700160

2024

BROCHURE OF THE DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Brochure of the Department of ECE

The Department of Electronics and Communication Engineering

ALIAH UNIVERSITY

IIA/27, NEW TOWN, KOLKATA-700160

October 2024

Current and former Head of the Department

- **2009-2011: Prof. T K Basu (Retd. Professor, IIT KGP), In-Charge/Mentor**
- **2011-2012: Dr. Md Abdul Alim Sheikh, M.Tech, PhD., HoD (Off)**
- **2012-2013: Dr. Ashraf Hossain, M.Tech, PhD., HoD(Off)**
- **2013-2015: Dr. Md. Asraful Sekh, M.Tech, PhD., HoD(Off)**
- **2015-2016: Mr. Somsubhra Tolapatra, M.E., HoD(Off)**
- **2016-2019: Dr. Sk Moinul Haque, M.Tech, PhD., HoD**
- **2019-2022:Dr.Quazi Mohmmad Alfred, M.Tech, PhD., HoD**
- **2022-2024: Dr. Md. Asraful Sekh, M.Tech, PhD, HoD**
- **2024- Present: Dr. Sk Babar Ali. M.Tech, PhD, HoD**

Message from the Head of the Department

It is my pleasure and honour to welcome you to the Department of Electronics and Communication Engineering, Aliah University that is one of the fast-growing higher education institutions of Eastern India. It has a unique pre-history, a brief look at this will offer an understanding of its social and cultural importance foradvancement of education and culture.

Since its inception in the year 2009, the department is constantly trying to create all infrastructural facilities towards academic and research activities for our students. The course has earned AICTE approval from 2015-16 academic session and UGC 12B from 2017-18 academic session. The university has prepared for NAAC accreditation and NAAC peer team visit is expected soon. The department is hopeful in applying for NBA accreditation very soon.

The objective of the department is to provide quality technical education to make the students industry-ready. Our goal is to ensure that our engineering graduates are well prepared to play the roles of problem solvers, project leaders, entrepreneurs, and above all citizens of a global society with good moral and ethics.

The excellent infrastructure, dynamic teaching staff along with training and placement cell ensure a bright future to the students. The greatest asset of the department is its highly motivated and learned faculty. The faculty members are involved in teaching learning process as well as in research and development activities in the diverse domains of electronics and communication engineering.

We are confident that our students will emerge as assets not only to the institution and to the organization they join, but to the society at large. With this, I would like to congratulate the students and staff for their brilliant achievements and wish them a great future

This brochure provides an overview of the department of ECE including course curriculum in UG, PG and PhD level, faculty profiles, academic and research activities, and student data along with various aspects of the department. We hope that everyone will find this brochure informative.

Dr. Sk. Babar Ali
HoD, Electronics and Communication Engineering

1. Introduction to the Department

Department of Electronics and Communication Engineering
Aliah University,
Action area IIA/27, Newtown, Kolkata, West Bengal- 700160

1.1 About the Department

The Department of Electronics and Communication Engineering started its journey in July 2009. The first batch of Electronics and Communication Engineers graduated from the department in 2013. The M.Tech. Programme was started in 2013 and the first batch of Post Graduates passed out in 2015. The Department so far offered 4 years (8 Semesters) Bachelor of Technology (B.Tech.) course in Electronics and Communication Engineering and 2 years (4 Semesters) Master of Technology (M.Tech.) course in Electronics and Communication Engineering with **specialization in Communication Engineering**. From the year 2016 onward, the Department has started offering Ph.D. programmes in Electronics and Communication Engineering in various fields, like Microwaves and Antennas, Optical Communications and Photonics, Signal Processing, VLSI, Sensor Systems etc.

Considerable effort has been put forwarded during the last few years towards setting up of new undergraduate and postgraduate laboratories and augmenting the facilities in the existing laboratories. The department is striving constantly for commendable performance in research and development works in the fields of Electronics and Communication Engineering. A good number of research papers/articles has been published in international and national journals and conferences.

1.2. Mission and Vision of the Department

Mission:

1. To impart fundamentals of core electronics & communication engineering subjects among the students to fulfil industry and academic needs.
2. To empower students with latest technology and trends in their fields of study.
3. To promote academic/research collaboration with reputed academics and industries in India and Abroad.
4. To motivate students with professional ethics and values towards societal responsibility.

Vision:

To impart quality education and research in Electronics and Communication Engineering domain so as to provide sustainable and cost-effective technical solutions of the pertinent challenges in the society.

1.3 Programme Educational Objectives (PEOs)

UG,PG and Research Programmes under Electronics and Communication Engineering Department has been carrying some focussed and underlining objectives as follows.

PEO1: To impart knowledge and understanding among students to develop core concepts of Electronics and Communication Engineering.

PEO2: To develop a strong foundation of practical knowledge for solving real world challenges in the field electronics and communication engineering.

PEO3: To give exposures to emerging technologies, adequate training and opportunities to work as team on multidisciplinary projects with effective communication skills and leadership qualities.

PEO4: To create a sustainable and balanced academic environment in terms of research, innovation and entrepreneurship.

1.4 Programme Outcomes (POs) and Programme Specific Outcomes (PSOs)

Departmental programs are well organized to provide the following outcomes. **Programme Outcomes (PO)** are general outcomes but there are some specific outcomes known as **Programme Specific Outcomes (PSO).**

PO-1:Engineering Knowledge: Apply the knowledge of mathematics, science, Electronics and Communication engineering fundamentals to the solution of complex engineering problems.
PO-2: Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO-3: Design/Development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO-4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO-5:Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO-6:The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO-7:Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO-8:Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO-9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10: **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO-11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO-12:Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PSO-1:
An ability to understand the concepts of Electronics & Communication Engineering and to apply them to study, investigate, design and develop solutions on different areas such as Analog and Digital Electronics Devices and Circuits, Microprocessor and Embedded Systems, Signals and Image Processing, VLSI, Communication Systems etc.

PSO-2: To develop a centre of excellence for learning and research in the field of RF, microwave, mm-wave and photonics communication system and relevant emerging areas.

PSO-2: To make the department a seat for learning and research of new innovative ideas in the field sustainable technological development in Electronics and Communication Engineering. Thus, creation of innovation and entrepreneurship.

1.5 Programmes and Courses

At present the Department offers 4 years (8 Semesters) Bachelor of Technology (B.Tech.) course in Electronics and Communication Engineering and 2 years (4 Semesters) Master of Technology (M.Tech.) course in Electronics and Communication Engineering with **specialization in Communication Engineering**. From the year 2016 onward, the Department has started offering **Ph.D. programmes** in Electronics and Communication Engineering in various fields, like Microwaves and Antennas, Optical Communications and Photonics, Signal Processing, VLSI, Sensor Systems etc.

The latest approved course curriculum for the above courses are mentioned below. The detailed syllabus is available in the departmental page of the university website, a link is mentioned here. Four-Years Bachelors Programme is as per AICTE model syllabus 2018-19, effective from 2019-20 academic session onwards and Two-Years Masters Programme is as per Choice Based Credit System (CBCS) adopted by the university in 2021-22,effective from 2021- 2022academic

session onwards. The course work syllabus is as per UGC 2016 regulation and effective from 2017 onwards.

1.5.1 Course Structure of 4-Year B.Tech. Programme

Course code and definition:

Course code	Definitions
L	Lecture
T	Tutorial
P	Practical
BSC	Basic Science Courses
ESC	Engineering Science Courses
HSMC	Humanities and Social Sciences including Management courses
PCC	Professional core courses
PEC	Professional Elective courses
OEC	Open Elective courses
LC	Laboratory course
MC	Mandatory courses
PROJ	Project

Definition of Credit:

1 Hr. Lecture (L) per week	1 credit
1 Hr. Tutorial (T) per week	1 credit
1 Hr. Practical (P) per week	0.5 credits
2 Hours Practical (Lab)/week	1 credit

Range of credits –

A range of credits from 150 to 160 for a student to be eligible to get Under Graduate degree in Engineering. A student will be eligible to get Under Graduate degree with Honours or additional Minor Engineering, if he/she completes an additional 20 credits. These could be acquired through MOOCs.

Structure of Undergraduate Engineering program:

Category Index	Category name	Ideal credit set by AICTE	Actual credit proposed
HSMC	Humanities and social science including management	12	10
BSC	Basic Science course	25	23
ESC	Engineering Science course	24	22.5
PCC	Professional core courses	48	60.5
PEC	Professional elective courses	18	21
OEC	Open elective course	18	12

PROJ	Project, seminar, internship in industry	15	16
MC	Mandatory courses	Non-credit	0
TOTAL		**160***	**165**

*Minor variation is allowed as per need of the respective disciplines.

Semester-wisestructureofcurriculum

[L= Lecture, T = Tutorials, P = Practical& C = Credits]

Semester I (First year)

SlNo	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	C
1	ESC	MENUGES01	Engineering Mechanics	3	1	0	4	4
2	ESC	EENUGES01	Basic Electrical Engineering	3	0	0	3	3
3	BSC	MATUGBS01	Engineering Mathematics I	4	0	0	4	4
4	BSC	PHYUGBS01	Engineering Physics	3	0	0	3	3
5	ESC	CENUGES01	Engineering Graphics& Design	0	1	3	4	2.5
6	ESC	EENUGES02	Basic Electrical Engineering Lab	0	0	3	3	1.5
7	BSC	PHYUGBS02	Engineering Physics Lab	0	0	3	3	1.5
8	MC	UCCUGAU01	Elementary Arabic & Islamic Studies	4	0	0	4	0
TOTAL PERIOD PER WEEK								**28**
TOTAL CREDIT								**19.5****

**** Students will undergo an induction program of 3 weeks duration during the First Semester**

Semester II (First year)

SlNo	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	
1	ESC	CSEUGES01	Programming for Problem Solving	3	0	0	3	3
2	*ESC*	ECEUGES01	Basic Electronics Engineering	3	0	0	3	3
3	BSC	MATUGBS02	Engineering Mathematics II	4	0	0	4	4
4	BSC	CHMUGBS01	Engineering Chemistry	3	0	0	3	3
5	HSMC	ENGUGHU01	Communicative English	3	0	0	3	3
6	ESC	CSEUGES02	Programming for Problem SolvingLab	0	0	4	4	2

7	ESC	ECEUGES02	Basic Electronics Engineering Lab	0	0	3	3	1.5
8	ESC	MENUGES02	Workshop Practice	0	1	2	3	2
9	BSC	CHMUGBS02	Engineering Chemistry Lab	0	0	3	3	1.5
10	HSMC	ENGUGHU02	Language Lab	0	0	2	2	1
TOTAL PERIOD PER WEEK								**31**
TOTAL CREDIT								**24**

Semester III (Second year)

SlNo	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	
1	PCC	ECEUGPC01	Analog Electronics	3	0	0	3	3
2	PCC	ECEUGPC02	Signals and Networks	3	0	0	3	3
3	PCC	ECEUGPC03	Physics of Semiconductor Devices	3	0	0	3	3
4	OEC		OEC I	3	0	0	3	3
5	BSC	MATUGBS03	Engineering Mathematics III	4	0	0	4	4
6	MC	UCCUGAU03	Indian Constitution	2	0	0	2	0
7	*PCC*	ECEUGPC04	Analog Electronics Lab	0	0	3	3	1.5
8	PCC	CSEUGPC02	Data Structures Lab	0	0	3	3	1.5
TOTAL PERIOD PER WEEK								**24**
TOTAL CREDIT								**19**

Semester IV (Second year)

SlNo	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	
1	*PCC*	ECEUGPC05	Digital Electronics and Logic Design	3	0	0	3	3
2	*PCC*	ECEUGPC06	Electromagnetic Engineering	3	0	0	3	3
3	*PCC*	ECEUGPC07	Electronic and Electrical Measurement	3	0	0	3	3
4	OEC		OEC II	3	0	0	3	3

5	BSC	BIOUGBS01	Biology for Engineers	2	0	0	2	2
6	*MC*	UCCUGMC02	Environmental Science	2	0	0	2	0
7	PCC	ECEUGPC08	Digital Electronics & Logic Design Lab	0	0	3	3	1.5
8	PCC	ECEUGPC09	Transmission Line and Antenna Lab	0	0	3	3	1.5
TOTAL PERIOD PER WEEK								**22**
TOTAL CREDIT								**17**

Semester V (Third year)

SlNo	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	
1	PCC	ECEUGPC10	Microprocessor and Microcontroller	3	0	0	3	3
2	*PCC*	ECEUGPC11	Communication System	3	0	0	3	3
3	*PCC*	ECEUGPC12	Micro and Nano Fabrication Process	3	0	0	3	3
4	PCC	EENUGPC17	Power Electronics Devices & Converters	3	0	0	3	3
5	PCC	EENUGPC08	Control System	3	0	0	3	3
6	OEC		OEC III	3	0	0	3	3
7	PCC	ECEUGPC13	Communication Systems Lab	0	0	3	3	1.5
8	PCC	ECEUGPC14	Microprocessor and Microcontroller Lab	0	0	3	3	1.5
9	PCC	EENUGPC11	Control Systems Lab	0	0	3	3	1.5
TOTAL PERIOD PER WEEK								**27**
TOTAL CREDIT								**22.5**

Semester VI (Third year)

SlNo	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	
1	PCC	ECEUGPC15	Digital Signal Processing	3	0	0	3	3
2	PCC	ECEUGPC16	Photonics Devices and Optical Communication	3	0	0	3	3

3	PCC	ECEUGPC17	VLSI Circuit Design	3	0	0	3	3
4	OEC		OEC IV	3	0	0	3	3
5	PCC	ECEUGPC18	Digital Signal Processing Lab	0	0	3	3	1.5
6	PCC	ECEUGPC19	Photonics Devices and Optical Communication Lab	0	0	3	3	1.5
7	PCC	ECEUGPC20	VLSI Circuit Design lab	0	0	3	3	1.5
8	PROJ	ECEUGPR01	Seminar	0	0	2	2	1
9	PROJ	ECEUGPR02	Electronic Design Workshop	0	0	2	2	1
TOTAL PERIOD PER WEEK								**24**
TOTAL CREDIT								**18.5**

***** A student must undergo summer internship of 2-4 week duration during the break after 6th semester (before commencement of 7th semester). The same will be evaluated during 7th semester.**

Semester VII (Fourth year)

Sl no	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	C
1	PEC		PEC I	3	0	0	3	3
2	PEC		PEC II	3	0	0	3	3
3	PEC		PEC III	3	0	0	3	3
4	PEC		PEC IV	3	0	0	3	3
5	HSMC	MBAUGHU01	Industrial Economics & Management	4	0	0	4	4
6	PEC		PEC VII (RF and Microwave Lab)	0	0	3	3	1.5
7	PCC	ECEUGPC21	Electronic Design automation Lab	0	0	3	3	1.5
8	PROJ	ECEUGPR03	Summer Internship	-	-	-	-	2
9	PROJ	ECEUGPR04	Project I	0	0	8	8	4
TOTAL PERIOD PER WEEK								**30**
TOTAL CREDIT								**25**

Semester VIII (Fourth year)

SlNo	Category Index	Paper code	Name of the paper	Periods per week				Credit
				L	T	P	Total	C
1	PEC		PEC V	3	0	0	3	3
2	PEC		PEC VI	3	0	0	3	3
3	HSMC	MBAUGHU02	Professional Values & Ethics	2	0	0	2	2
4	PEC		PEC VII (Wireless and Mobile Communication lab)	0	0	2	2	1.5
5	PROJ	ECEUGPR05	Project II	0	0	16	16	8
6	PCC	ECEUGPC22	Grand Viva	-	-	-	-	2
TOTAL PERIOD PER WEEK								**26**
TOTAL CREDIT								**19.5**

List of Elective papers

Professional Elective Course (PEC)-I:		
SL. No	Code	Subjects
1	ECEUGPE01	Information Theory and Coding
2	ECEUGPE02	Micro Electro Mechanical System
3	ECEUGPE03	Nanotechnology
Professional Elective Course (PEC)-II:		
SL. No	Code	Subjects
1	ECEUGPE04	Satellite Communication
2	ECEUGPE05	Remote Sensing
3	ECEUGPE06	Advanced Optical Communication
Professional Elective Course (PEC)-III		
SL. No	Code	Subjects
1	ECEUGPE07	Image Processing and Computer Vision
2	ECEUGPE08	Medical Signal Processing
3	ECEUGPE09	Adaptive System and Signal Processing
Professional Elective Course (PEC)-IV		

SL. No	Code	Subjects
1	ECEUGPE10	RF and Microwave Engineering
2	ECEUGPE11	Radar System
3	ECEUGPE12	EMI/EMC Techniques
Professional Elective Course (PEC)-V		
SL. No	Code	Subjects
1	ECEUGPE13	Wireless and Mobile Communication
2	ECEUGPE14	Adhoc& Sensor Network
3	ECEUGPE15	Renewable Energy
Professional Elective Course (PEC)--VI		
SL. No	Code	Subjects
1	ECEUGPE16	Soft Computing
2	ECEUGPE17	Robotics and Intelligent System
3	ECEUGPE18	Optical & Advanced Control
Professional Elective Course (PEC)--VII		
Sl No	Code	Subjects
1	ECEUGPE19	RF and Microwave Engineering Lab
2	ECEUGPE20	Wireless and Mobile Communication Lab

List of Open Elective Courses

SlNo	Code	Course	Semester
1	**CENUGOE01**	Building Materials	3rd
2	**CSEUGOE01**	Data Structures & Algorithms Analysis	
3	**ECEUGOE01**	Electronic Devices & Circuits	
4	**MENUGOE01**	Materials Engineering	
5	**CENUGOE02**	Engineering Geology	4th
6	**CSEUGOE02**	Computer Organization	
7	**ECEUGOE02**	Principal of Communication System	
8	**ECEUGOE03**	Digital Electronics	
9	**MENUGOE02**	Thermodynamics	
10	**CENUGOE03**	Transportation Engineering	5th
11	**CSEUGOE03**	Object Oriented Programming	
12	**ECEUGOE04**	Microprocessor & its Application	
13	**MENUGOE03**	Strength of Material	
14	**CENUGOE04**	Environmental Engineering	6th
15	**CSEUGOE04**	Data Communication & Computer Networks	

16	**ECEUGOE05**	Microelectronics	
17	**MENUGOE04**	Mechatronics	
18	**CENUGOE05**	Hydraulics Engineering	7th
19	**CSEUGOE05**	Digital Image Processing	
20	**ECEUGOE06**	Radar System	
21	**MENUGOE05**	Non-conventional Energy Utilization	
22	**CENUGOE06**	Construction Management	8th
23	**CSEUGOE06**	Data Science	
24	**ECEUGOE07**	Laser Technology	
25	**ECEUGOE08**	Neural Network	
26	**MENUGOE06**	Finite Element Method	
27	**MBAUGOE01**	Entrepreneurship Development	5th semester onwards

Semester wise Credit Segregation

Semester	HSMC	BSC	ESC	PCC	PEC	OEC	PROJ	MC	TOTAL
1st	-	8.5	11	-	-	-	-	√	**19.5**
2nd	4	8.5	11.5	-	-	-	-	x	**24**
3rd	-	4	-	12		3	-	√	**19**
4th	-	2	-	12	-	3	-	√	**17**
5th	-	-	-	19.5	-	3	-	x	**22.5**
6th	-	-	-	13.5		3	2	x	**18.5**
7th	4	-	-	1.5	13.5	-	6	x	**25**
8th	2	-	-	2	7.5	-	8	x	**19.5**
TOTAL	**10**	**23**	**22.5**	**60.5**	**21**	**12**	**16**	**0**	**165**

Note: Subject code indicated by CSE/EE, the concerned departments (CSE/EE) will have to organize the course. The detailed courses in such cases have to be recommended by the concerned departments.

1.5.2 Course Structure of 2-Year M.Tech. Programme

Note: For subjects, if any, with codes initiated by CSE/EEN/MEN/CEN, the concerned departments (CSE/EEN/MEN/CEN) will have to organize the course. The detailed courses in such cases have to be recommended by the concerned departments.

A	**B**	**C**	**E**	**F**	**G**	**H**	**X**	**X**

Subject Coding followed

1. **ABC: Three Character Department Code. Where it does not represent any dept. then it is UCE (University Core Elective)**
2. **EF : EF represents PG**
3. **GH: It represents either PC/PE/OE/AU/MC/PR**
4. **XX: 01 to 50 for theoretical subjects and 51 to 99 for labs.**

Credit Summary

1st Semester	2nd Semester	3rd Semester	4th Semester	Total
14	19	15	16	64

First Semester Structure

SL. No.	Course Code	Course Category	Course Name	Contacts (periods/week)	Credits	Remark
01	ECEPGPC01	Professional Core I	Advanced Digital Signal Processing	3L-0T-0P	3	
02	ECEPGPC02	Professional Core II	Optical Communication and Network	3L-0T-0P	3	
03	*	Professional Elective I		3L-0T-0P	3	
04	**	Professional Elective II		3L-0T-0P	3	
05	UCEPGAU01	Audit Course I	Elementary Arabic and Islamic Studies	4L-0T-0P	0	
06	#	Audit Course II		2L-0T-0P	0	To be selected from list in **Appendix-A**
07	ECEPGPC51	Laboratory I	Optical Communication and Signal Processing Lab	0L-0T-4P	2	
Total credits					**14**	

*** Professional Elective-I:**

1. ECEPGPE01 Theory of Statistical Communication
2. ECEPGPE02 Radar Signal Processing

3. ECEPGPE03 Software Defined Radio and Cognitive Radio

**** Professional Elective II:**

1. ECEPGPE04 Microwave Devices, Circuits and Antenna
2. ECEPGPE05 Phased Array Antenna System
3. ECEPGPE06 Satellite Communication and Remote Sensing

Second Semester Structure

SL. No.	Course Code	Course Category	Course Name	Contacts (periods/week)	Credits	Remark
01	ECEPGPC03	Professional Core III	Advanced Communication and Networks	3L-0T-0P	3	
02	ECEPGPC04	Professional Core IV	VLSI Architecture for DSP	3L-0T-0P	3	
03	***	Professional Elective III		3L-0T-0P	3	
04	****	Professional Elective IV		3L-0T-0P	3	
05	# #	Open Elective		3L-0T-0P	3	To be selected from list in **Appendix - B**
06	ECEPGPC52	Laboratory II	Advanced Communication and VLSI Architecture for DSP Laboratory	0L-0T-4P	2	
07	ECEPGPR01	Minor Project		0L-0T-4P	2	
Total Credits					**19**	

*** **Professional Elective III:**

1. ECEPGPE07 IoT and Wireless Sensor Networks
2. ECEPGPE08 Advanced Sensor Design
3. ECEPGPE09 Artificial Intelligence

**** **Professional Elective IV:**

1. ECEPGPE10 Microwave Integrated Circuits
2. ECEPGPE11 Smart Antennas
3. ECEPGPE12 Computational Electromagnetics

Third Semester Structure						
SL. No.	**Course Code**	**Course Category**	**Course Name**	**Contacts (periods/week)**	**Credits**	**Remark**
01	*****	Professional Elective V		3L-0T-0P	3	
02	ECEPGPR02	Research Methodology & IPR		2L-0T-0P	2	
03	ECEPGPR03	Dissertation I		0L-0T-20P	10	
				Total credits	**15**	

*****Professional Elective V**

1. ECEPGPE13 Mobile Networks and Computing
2. ECEPGPE14 Multimedia Communication
3. ECEPGPE15 Security in Mobile Networks

Fourth Semester Structure						
SL. No.	**Course Code**	**Course Category**	**Course Name**	**Contacts (periods/week)**	**Credits**	**Remark**
01	ECEPGPR04	Dissertation II		0L-0T-20P	16	01
				Total credits	**16**	

Appendix-A

List of Audit Course II

Sl No.	Course Code	Course Name
1	UCEPGMC01	Pedagogy Studies
2	UCEPGMC02	English for Research Paper Writing
3	UCEPGMC03	Disaster Management
4	UCEPGMC04	Sanskrit for Technical Knowledge
5	UCEPGMC05	Value Education
6	UCEPGMC06	Constitution of India
7	UCEPGMC07	Stress Management by Yoga
8	UCEPGMC08	Personality Development through Life Enlightenment Skills

Appendix-B

List of Open Elective Course

SL No	Code	Course	Offering Department
1	CSEPGOE01	Image Processing	Computer Science and Engineering
2	CSEPGOE02	Data Analytics	
3	CSEPGOE03	Internet of Things	
4	CENPGOE01	Operations Research	Civil Engineering
5	CENPGOE02	Waste to Energy	
6	CENPGOE03	Remote Sensing & GIS	
7	EENPGOE01	Optimization in Engineering	Electrical Engineering
8	EENPGOE02	Essentials of Renewable Energy System	
9	EENPGOE03	Industrial Automation & Control	
10	**ECEPGOE01**	**Laser Systems and Applications**	**Electronics and Communication Engineering**
11	**ECEPGOE01**	**Cyber Physical Systems**	
12	**ECEPGOE01**	**Signal and Image Processing**	
13	MENPGOE01	Materials Engineering	Mechanical Engineering
14	MENPGOE02	Finite Elements Analysis	
15	MENPGOE03	Non-Conventional Energy Sources	

N.B: Courses given in the SL. No. 10-12 cannot be opted by the students of ECE department.

1.5.3 Course Work Structure of PhD Programme

As per Aliah University PhD regulation based on UGC regulation 2022 following 4 courses with total credit 14 has to be completed within 2 semesters after enrollment in PhD Programme. First 3 courses are common for all disciplines and fourth one is based on subject paper of relevant discipline. Any one subject from the list given below to be offered to a scholar by the concerned DSC of the scholar.

Course Code	Course Title	Credit
PHD/RM-01	Research Methodology	04
PHD/RPE-02	Research and Publication Ethics	02
PHD/LR-03	Literature Review, Report and Seminar Presentation	04
PHD/SP-04	Subject Paper	04

The following subjects are recommended as subject papers in the BOS meeting.

Sl. No.	Name of the Subject Paper
1	Phased Array Antenna System
2	Microwave Integrated Circuits
3	Smart Antennas
4	Computational Electromagnetics
5	Fiber Optic Communication and Network
6	Laser Principles and Applications
7	Nanophotonics
8	Satellite in Navigation and Remote Sensing
9	Advanced Digital Signal Processing
10	Digital Signal and Image Processing
11	Machine Learning
12	Pattern Recognition
13	Artificial Intelligence
14	Advanced Sensor Design
15	IoT and Wireless Sensor Network
16	Cyber Physical System
17	Security in Mobile Networks
18	VLSI Architecture for Signal Processing
19	Software Define Radio and Cognitive Radio
20	Advanced Communication and Networks

2. About Faculties and Non-Teaching Staff

2.1 Faculty Profile

The Department has 11 esteemed faculty members comprising of 3 Associate Professors and 8 Assistant Professors. One DST-Inspire Faculty Fellow is also working from September 2023. Faculties have a broad spectrum of expertise and research interests in the domain of Semiconductor Devices, Microwave and Antenna System, Signal Processing, VLSI, Fiber Optics Communication, Sensor Systems, Wireless Communication.

Name of Faculty Member	Year of Joining	Qualification	Area of Interest
Dr. Md. Abdul Alim Sheikh	2009	M.Tech., Ph.D	Signal and Image Processing
Dr. Md. Asraful Sekh	2010	M.Tech., Ph.D	Optical Communication
Mr. SomsubhraTalapatra	2012	M.E.	Electronic Devices, VLSI Circuit Design
Mr. Ikbal Ali	2012	M. Tech	Electronic Devices and Circuits
Dr. Sk. Moinul Haque	2013	M.Tech., Ph.D	RF & Microwave Engineering
Mr. Anisur Rahaman	2013	M. Tech	Radio Physics and Electronics
Mr. Sain Shaikh	2013	M. Tech	Digital System and Instrumentation
Dr. Sabir Ali Mondal	2015	M.E., Ph.D	VLSI Design
Mr. A.H.M. Toufique Ahmed	2017	M. Tech	Communication Engineering
Dr. Quazi Mohmmad Alfred	2019	M.Tech., Ph.D	Microwave Engineering
Dr. Sk. Babar Ali	2021	M.Tech., Ph.D	Embeded and Sensor Systems
Dr. Barnali Ghatak	2023	M.Tech., Ph.D	Instrumentation and Sensor Systems

Faculty Members of the Dept. of ECE

Presented below is a comprehensive overview of the research and teaching activities undertaken by the distinguished faculty members.

Dr. Md, Abdul Alim Sheikh

Assistant Professor

PhD, Electrical Engineering, IIT (ISM)

M. Tech, E&TCE,Jadavpur University

alim.ece@aliah.ac.in

Research Area: Digital Signal and Image processing Computer Vision, Machine Learning

Teaching Arears: Digital Signal Processing, Image Processing and Computer Vision, Soft Computing, Adaptive Signal Processing, Artificial Intelligence

Ikbal Ali

Assistant Professor

M. Tech, Electronic Devices & Circuit,Calcutta University

ikbalali77@gmail.com

Research Area: Electronic Devices & Circuit, Injection locking of Oscillator, Energy Operator and its Application to Communication System.

Teaching Arears: Electronic Devices & Circuits, Digital Electronics & Logic Design, Optoelectronic Devices & Optical Communication, Wireless Communication, Physics of Semiconductor Devices, Circuit Theory & Network Analysis.

Dr. Md.Asraful Sekh

Associate Professor

PhD(Tech), AOP, CU

M. Tech, O&OE,Calcutta University

asraful.ece@aliah.ac.in

Research Area: GRIN Optical Devices, Optical Amplifier, Optical Wireless Communication (FSO/VLC), Optical Networks (PON/WDM-PON/H-PON)

Teaching Arears: Photonic Devices, Analog & Digital Electronics, Engineering Electromagnetics, Satellite Communication, Optical Communication & Network.

Dr. Sk Moinul Haque

Associate Professor

PhD, ECE, IITKgp

M. Tech, ECE, IITKgp

moinul.ece@aliah.ac.in

Research Area: Antenna Miniaturization, Confocal Antennas, DRA, Meta-Material

Teaching Arears: RF & Microwave Engineering, Wireless & Mobile Communication, Microwave Integrated Circuits, Microwave Devices, Circuits & Antenna.

Somsubhra Talapatra

Assistant Professor

M.E., BESU

somsubhra.ece.ece@aliah.ac.in

Research Area: Electron Devices, IC Design, Computer Architecture, VLSI Interconnect

Teaching Arears: Physics of Semiconductor Devices, VLSI Circuit Design, Information Theory & Coding, FPGA Architecture

Anisur Rahaman

Assistant Professor

M. Tech, Radio Physics &Electronics,Calcutta University

anisur.ece@aliah.ac.in

Research Area: Antenna and Microwave Communication.

Teaching Arears: Basic Electronics, Analog Electronics, Engg. Electromagnetics, Analog & Digital Communication.

Sain Shaikh

Assistant Professor

M. Tech, Digital System & Instrumentation,Jadavpur University

sain.ece@aliah.ac.in

Research Area: Digital Communication, Signal Processing, IoT

Teaching Arears: Digital Electronics, Microprocessor & Microcontroller, Digital Signal Processing.

Dr. Quazi Mohmmad Alfred

Associate Professor

PhD,ECE, JU

M. Tech, Microwave Engg. BurdwanUniversity

quazi_alfred@aliah.ac.in

Research Area: Signal Processing, RF & Microwave Communication, Bioinformatics, Phased Array Antenna

Teaching Arears: Analog Electronics & Devices, RF & Microwave Engineering, Digital Signal Processing, RF System Design.

Dr. Sabir Ali Mondal

Assistant Professor

PhD,ECE,IIEST

M. E., VLSI Design, IIEST

sabir.ece@aliah.ac.in

Research Area: ASIC Design for DLL, ADC, LNA

Teaching Arears: Electronic Measurements, Digital Electronics, Microelectronics, Micro & Nano Fabrication Process, Signals & Networks.

Dr. Sk Babar Ali

Associate Professor

PhD, ECE, JU

M.Tech, Sensor System, Jadavpur University

babar.ece@aliah.ac.in

Research Area: Embebed System & Signal Communication, Sensor & Measurement System, Electronic Nose & Tongue.

Teaching Arears: Analog & Digital Electronics, Microprocessor & Microcontroller, Embedded System, Sensor & Industrial Instrumentation.

A.H.M. Toufique Ahmed

Assistant Professor

M. Tech, Communication Engineering,VIT

toufique.ahmed@aliah.ac.in

Research Area: Statistical Signal Processing & Modeling, Biomedical Signal Processing, Biosensors and Bioelectronics

Teaching Arears: Basic and Analog Electronics, Theory of Statistical Communication, Advanced Communication and Netsorks.

Dr. BarnaliGhatak

DST-Inspire Faculty Fellow

M. Tech, Digital System &Instrumentation, JadavpurUniversity

barnali.099054@gaail.com

Research Area: Sensor System, Electronic Measurement.

Teaching Arears: Basic and Digital Electronics, Microprocessor & Microcontroller.

2.2 Research Publications (2018-till date)

2.2.1 Books/Book Chapter Publication (2018-till date)

Sl. No.	Name of the teacher	Title of the book/chapters published	Title of the paper	Title of Conf. Proc.	Year of publication	ISBN/ISSN number of the proceeding	Name of the publisher
1	Sk Babar Ali	Comprehensive Material Processing, vol. 4, pp. 326-339	Recent trends in polymer nanocomposites with molecular imprints and their electrochemical applications: An overview		2024		Elsevier
2	Dr. Quazi Mohmmad Alfred	Industry 5.0 for Smart Healthcare Technologies: Utilizing Artificial Intelligence, Internet of Medical Things and Blockchain			2024		Taylor & Francis
3	Dr. Quazi Mohmmad Alfred	Millimetre Wave V2X Communications in 5G for Achieving Reliability in Vehicle Drive			2024		CRC Press
4	Dr. Quazi Mohmmad Alfred	Modelling of Virtual Worlds Using the Internet of Things			2024		CRC Press

5	Dr. Quazi Mohmmad Alfred	Intelligent Systems for IoE Based Smart Cities ,			2023		Bentham Science Publishers
6	Dr. Md. Abdul Alim Sheikh	Futuristic Trends in Artificial Intelligence	Extraction of Man-made Object from Remote Sensing Images using Gabor Energy Features and Neural Networks	NA	2022	ISBN: 978-93-95632-70-6	Iterative International Publishers (IIP) Proceedings
7	Dr. Md. Asraful Sekh	ICT Analysis and Applications, Lecture Notes in Networks and Systems	A Survey of Different Modulation Schemes and Channel Modeling Techniques of a VLC System'	NA	2022	978-891-19-5242-1	Springer, Singapore,
8	Dr. Md. Asraful Sekh	Emerging Electronics and Automation, Lecture Notes in Electrical Engineering	Design of Dispersion Compensated with NRZ Modulation-Based 8- and 16-Channels WDM System for Long-Haul Communication	NA	2022	978-981-19-4300-3	Springer, Singapore
9	Dr. Sk Babar Ali	Healthcare Informatics for Fighting COVID-19 and Future Epidemics	SmartCovSens: A Multimodal Approach for Detection of COVID-19	EAI/Springer Innovations in Communication and Computing	2022	ISBN 978-0826111128.	Springer International Publishing
10	Dr. Sk Babar Ali	Healthcare Informatics for Fighting COVID-19 and Future Epidemics	Towards the Development of Triboelectricity-Based Virus Killer Face Mask for COVID-19: Role of Different Inputs	EAI/Springer Innovations in Communication and Computing	2022	ISBN 978-0826111128.	Springer International Publishing
11	Dr. Quazi Mohmmad Alfred	Computational Intelligence and Data Sciences	Application of 5G/6G Technology to overcome pandemic and disaster situation	NA	2022	ISBN :9781003224068	CRC Press, 2022.

12	A.H.M. Toufique Ahmed	NA	Detection of Andrographolide using Platinum Electrode Based Electrochemical System	ICEFEET-2022, NIT Patna	2022	978-1-6654-8875-4	
13	Dr. Sk Babar Ali	NA	Discrimination of Thymoquinone Using Near Infrared Spectroscopy Technique	2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET)	2022	ISBN 978–80–7043–987–6	
14	Somsubhra Talapatra	A Scalable VLSI Architecture for Illumination-Invariant Heterogeneous Face Recognition	A Scalable VLSI Architecture for Illumination-Invariant Heterogeneous Face Recognition	Innovations in Electrical and Electronic Engineering. Lecture Notes in Electrical Engineering, vol 756.	2021	ISBN: 978-981-16-0749-3	Springer.
15	Dr. Quazi Mohmmad Alfred	EAIT 2021	Advanced Technique for IoT Applications, Millimeter Wave Based Reliable V2X Communication	NA	2021		LNNS,Springer
16	Dr. Md Asraful Sekh	NA	Wavelength Conversion in 4 channel WDM system using the Cross-Gain Saturation Effect of SOA	Conference Abstract Proceedings of OPTICA (formerly OSA) IONS Ireland 2021International Conference, jointly organized by Tyndall & University College Cork and the University College Dublin, 9-11 Nov'2021	2021		
17	Dr. Md Asraful Sekh	NA	Channel Modeling of a LED based VLC system for a room size of 5m x 5m x	Conference Abstract Proceedings of OPTICA	2021		

			3m	(formerly OSA) IONS Ireland 2021International Conference, jointly organized by Tyndall & University College Cork and the University College Dublin, 9-11 Nov'2021			
18	Dr. Md Asraful Sekh	NA	Evaluating the S-band Amplification performance of TDFA based 32channels WDM System using different TDFA Lengths with High Pump Powers	XIV Annual Symposium of the Optical Society of India: Frontiers in Optics and Photonics (FOP21), organized by IIT Delhi, Sept 24-27, 2021	2021		
19	Dr. Quazi Mohmmad Alfred	NA	Analysis of BER , FER in the coexistence scenario of 4G LTE and 5G NR	IEEE Explore	2021	Electronic ISSN: 2643-8615	
20	Dr. Quazi Mohmmad Alfred	NA	Millimeter Wave V2X Communications in 5G for Achieving Reliability in Vehicle Drive	LNNS, Vol 282	2021	Springer	
21	Dr. Quazi Mohmmad Alfred	NA	Design of Water Metering, Flow Control and Quality Measurement Using IoT Communication		2021		
22	Sk Babar Ali	Healthcare Informatics for Fighting COVID-19 and Future Epidemics	SmartCovSens: A Multimodal Approach for Detection of COVID-19,	NA	2021		Springer, Cham,

23	Sk Babar Ali	Healthcare Informatics for Fighting COVID-19 and Future Epidemics	Towards the Development of Triboelectricity-Based Virus Killer Face Mask for COVID-19: Role of Different Inputs		2021		Springer, Cham,
24	Dr. Quazi Mohmmad Alfred	Time Delayed Phased Array Antenna System And Its Application	**NA**	**NA**	2020	ISBN: 978-620-2-52610-4	Lambert Academic Publishing,
25	Dr. Md. Asraful Sekh	Gradient Index Optical Elements-Fabrication and Characteristics	**NA**	**NA**	2020	ISBN: 978-620-2-67422-5	Lambert Academic Publishing,
26	Dr. Md. Asraful Sekh	Innovations in Electronics and Communication Engineering, Lecture Notes in Networks and Systems	Investigating Combinational Dispersion Compensation Schemes Using DCF and FBG at Data Rate of 10 and 20 Gbps	NA	2020	978-981-15-3172-9	Springer, Singapore
27	Dr. Quazi Mohmmad Alfred	Current Research Trends in Biological Science	A Review of the Computational Approach in Prediction of Eukaryotic Promoter Regions	NA	2020		Book Publisher International , 2020
28	A.H.M. Toufique Ahmed	NA	Detection of curcumin using a simple and sensitive molecularly imprinted polymer (MIP) embedded graphite electrode based electrochemical sensor	ICEFEET-2020, NIT Patna	2020	978-1-7281-7549-2	
29	Dr. Md Asraful Sekh	NA	Analysis of 8 Channel WDM-FSO Link at 40 Gbps data rate using RZ Modulation		2020		

30	Dr. Md Asraful Sekh	NA	Performance Analysis of 8×10 Gbps and 8×20 Gbps Dispersion Compensated WDM system for Long Distance Communication System with NRZ modulation		2020		
31	Dr. Md Asraful Sekh	NA	Performance Analysis of 8 channel and 16 channel WDM systems for Transmission over 1000 km at the Data Rate of 10 and 20 Gbps using DCF and FBG combinational schemes', ,		2020		
32	Dr. Sk Moinul Haque	NA	Design of miniaturized dual and tri-band slot antennas with bandwidth enhancement for various applications,		2020		
33	Dr. Sk Babar Ali	NA	Development of Linseed Oil Based Quartz Crystal Microbalance Sensor for Detection of Trimethylamine	International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET)	2020	ISBN 978–80–7043–987–6	
34	Dr. Quazi Mohmmad Alfred	NA	Integrated Access Backhaul Node supporting 5G and IOT Access	IEEE Explore	2020	Electronic ISSN: 2325-9418	
35	Dr. Quazi Mohmmad Alfred	NA	TSN enabled 5G Non-Public Network for Smart Systems	IEEE Explore	2020	Electronic ISBN: 978-1-7281-9180-5	
36	Dr. Quazi Mohmmad Alfred	NA	Attenuation Modelling and Machine Learning Based SNR Estimation for 5G Indoor Link,	IEEE Explore	2020	Electronic ISBN:978-1-7281-1933-5	

37	Dr. Md. Abdul Alim Sheikh	NA	Rain attenuation model for Ku-band signals at tropical locations	Emerging Technologies for Sustainable Development - ICETSD '19	2019		
38	Dr. Md Asraful Sekh	NA	Performance Analysis of a 8x10Gbps WDM system using DCF and FBG Combinational Schemes	Young Scientist Conference of 5th India International Science Festival (IISF-2019) at Biswa Bangla Convention Center, Kolkata, 5-7 Nov 2019	2019		
39	Dr. Md Asraful Sekh	NA	Fiber Optic Link Design for 10 Gbps System and its Performance Characteristics	Nat. Conf. on Atomic, Molecular and Nano Sciences (NCAMNS-2019), Dept. of Physics, Aliah University, Kolkata, 3-4 April 2019	2019		
40	Dr. Sk Moinul Haque	NA	Slot Antenna Miniaturization Using Dielectric Loading Techniques		2019	Electronic ISBN:978-1-5386-9286-8 Print on Demand (PoD) ISBN:978-1-5386-9287-5	
41	Dr. Sk Moinul Haque	NA	Design of Electrically Small Dipole Antenna Using Orthogonally Attached Split Rings		2019	Electronic ISBN:978-1-5386-5906-9 USB ISBN:978-1-5386-5905-2	
42	Dr. Sk Moinul Haque	NA	Frequency Reconfigurable Miniaturized Slot Antenna		2019	Electronic ISBN:978-1-5386-5906-9 USB ISBN:978-1-5386-5905-2	

43	Dr. Sk Babar Ali	NA	Discrimination of the maturity stages of Indian mango using QCM based electronic nose	18th International Symposium on Electronic Nose, JAPAN (ISOEN-2019)	2019	ISBN 978–80–7043–987–7	
44	Dr. Sk Babar Ali	NA	Development of Furaneol Imprinted Polymer Based QCM sensor for Discrimination of Artificially and Naturally Ripened Mango	19th International Symposium on Electronic Nose, JAPAN (ISOEN-2019)	2019	ISBN 978–80–7043–987–8	
45	Dr. Sk Babar Ali	NA	Selective and sensitive detection of Limonene in mango using molecularly imprinted polymer modified quartz crystal microbalance sensor	19th International Symposium on Electronic Nose, JAPAN (ISOEN-2019)	2019	ISBN 978–80–7043–987–8	
46	Dr. Sk Babar Ali	NA	Sensitive Detection of β-Myrcene in Mango Using Ethyl Cellulose Modified Quartz Crystal Microbalance Sensor	ICN:3I-2017, IIT Roorkee	2019	ISSN 1369-7021.	
47	Dr. Quazi Mohmmad Alfred	NA	5G URLLC Communication System with Cognitive Radio and Frequency Diversity Reception for improving Reliability in Smart Factory E-cranes operation	IEEE Explore	2019	Electronic ISSN: 2377-9152	
48	Dr. Md. Abdul Alim Sheikh	NA	Automatic Geospatial Objects Classification from Satellite Images	Emerging Technologies in Data Mining and Information Security	2018	ISSN 2194-5357	
49	Dr. Md. Abdul Alim Sheikh	Advances in Intelligent Systems and Computing	Automatic geospatial Objects Classification from satellite images	Emerging Technologies in Data Mining and Information Security	2018	ISSN 2194-5357	Advances in Intelligent Systems and Computing, Springer

							Nature
50	Dr. Md. Abdul Alim Sheikh	Advances in Intelligent Systems and Computing	EEG Signal Analysis Using Different Clustering Techniques	Emerging Technologies in Data Mining and Information Security	2018	ISSN 2194-5358	Advances in Intelligent Systems and Computing, Springer Nature
51	Dr. Md. Asraful Sekh	Advances in Communication , Devices and Networking Edition, Lecture Notes in Electrical Engineering	Investigation of Super Gaussian Pulse Amplification in Semiconductor Optical Amplifier (SOA)	NA	2018	978-981-10-7901-6	Springer, Singapore
52	Dr. Md. Abdul Alim Sheikh	NA	Classification of Remote Sensing Images into Man-made Objects and Natural Object Images based on Statistical Variations	Materials, Applied Physics & Engineering (ICMAE)	2018		
53	Dr. Md. Abdul Alim Sheikh	NA	Automatic Geospatial Objects Change Detection from Remote Sensing Images		2018		
56	Dr. Sk Moinul Haque	NA	Slot Antenna Miniaturization with Equal Electrical Path Length Using Different Shape of Loops		2018	Electronic ISBN:978-1-5386-3821-7	
57	Dr. Sk Moinul Haque	NA	Copper Coin Loaded Miniaturized Slot Antenna		2018	Electronic ISBN:978-1-5386-3821-7	
58	Dr. Sk Moinul Haque	NA	Miniaturization of slot antenna Using Meander Slit		2018	ISBN: 978-1-5386-6358-5	

2.2.2 Research Article Publication in Journal (2018-till date)

Year: 2018

1. **Md. Abdul Alim Sheikh**, Alok Kole, Tanmoy Maity "A Multi-level Approach for Change Detection of Buildings using Satellite Imagery" International Journal of Artificial Intelligence Tools, Vol. 27, No. 8, 1850031 (2018).
2. **Sabir Ali Mondal,** Pradip Mandal, Hafizur Rahaman, "Fast locking, startup-circuit free, low area, 32-phase analog DLL," Integration, Volume 66, 2019, Pages 60-66, ISSN 0167-9260, https://doi.org/10.1016/j.vlsi.2019.01.003.
3. **Sk Babar Ali**, B. Ghatak, N. Debabhuti, P. Sharma, A. Ghosh, B. Tudu, N. Bhattacharyya, R. Bandyopadhyay, Detection of β-Caryophyllene in mango using a quartz crystal microbalance sensor, **Sensors and Actuators B: Chemical**, Vol. 255 pp. 3064–3073, (2018).
4. B. Ghatak, **Sk Babar Ali**, A. Prasad, A. Ghosh, P. Sharma, B. Tudu, P. Pramanik, R. Bandyopadhyay. Application of Polymethacrylic Acid Imprinted Quartz Crystal Microbalance Sensor for Detection of 3- Carene in Mango**, IEEE sensor Journal**, Vol. 18, pp. 2697-2704, (2018).

Year: 2019

1. **Md. Abdul Alim Sheikh**, Alok Kole, Tanmoy Maity "Two stage Smooth Path Planning for Mobile Robot for Optimal Obstacle Avoidance problem in Unknown Environment" International Journal of Modelling and Simulation, Vol. 15 (2019) No. 3, pp. 302-320
2. **Md. Abdul Alim Sheikh,** Shariar Rahaman **"A** Novel Approach for Analysis of NDVI Change Detection from Multiview Satellite Imagery using Spatial Model**", Journal of Emerging Technologies and Innovative Research, Vol.6, No. 6, pp. 566-570, 2019. (UGC approved).**
3. M. Rahim, A. Touhid Bar, A. Begam and **Md. A. Sekh**, "Investigation of Dispersion Compensation Methods for the Data Rates of 2.5 and 10 Gbps Using Standard and Dispersion Compensated Fibers", Journal of Emerging Technologies and Innovative Research (JETIR), Volume 6, Issue 5, pp 731-734, eISSN: 2349-5162 (May 2019), Refereed [UGC Journal No. 63975], Impact Factor: 5.87, DOI: http://www.jetir.org/papers/JETIRCJ06153.pdf.
4. **SK. M. Haque** and H. Alam, "Further slot antenna miniaturization and bandwidth enhancement", International journal of RF and Microwave computer aided engineering, vol. 29, Iss 7 July, 2019.
5. P. Halder, B. Ghosh, **SK. M. Haque** and K. Srabandi, "Loop antenna over a conducting cone with aspherical cap," IET Microwaves antennas and propagation, vol. 13, Iss. 4, pp. 2559-2568, Sept.2019

6. **Sk Babar Ali**, B.Ghatak, N. Debabhuti, S. Pal, P. Sharma, B. Tudu, N. Bhattacharyya, R. Bandyopadhyay. Determination of β-Myrcene Volatile in Mango by Quartz Crystal Microbalance Sensor. **IEEE Sensors Journal**, Vol. 19 No. 3 pp. 893-900, (2019).
7. B.Ghatak, **Sk Babar Ali**, B. Tudu, P. Pramanik, S. Mukherji, R. Bandyopadhyay. Detecting Ocimene in mango using mustard oil based quartz crystal microbalance sensor. **Sensors and Actuators B: Chemical**, Vol. 284, pp. 514 524 (2019).

Year: 2020

1. **SK. M. Haque** and H. Alam, "Miniaturized dual-band slot antenna design for GPS, amateur radio and WLAN applications", International journal of RF and Microwave computer aided engineering, vol. 30, Iss. 4, April, 2020.
2. B. Ghatak, S. Banerjee, **Sk Babar Ali**, N. Das, B. Tudu, D. Mandal, R. Bandyopadhyay. Self-Joule Heating Activated Mask for Combatting COVID-19, Journal of Nanomedicine, Vol. 3, No. 1, 1027(2020).
3. B. Ghatak, S. Banerjee, **Sk Babar Ali**, R. Bandyopadhyay, N. Das, D. Mandal, B. Tudu, Design of a Self-powered Smart Mask for COVID-19, Journal of arXiv preprint arXiv:2005.08305, (2020).

Year: 2021

1. **Sekh, Md. Asraful**, Rahim, Mijanur and Begam, Anjumanara, "Design of EDFA based 16 channel WDM system using counter direction high pump power", Journal of Optical Communications, July 2021, DOI: https://doi.org/10.1515/joc-2020-0253.
2. K. M. Parvez and **SK.M. Haque, "**Bandwidth Enhancement and Cross-Polarization Suppression of Slot Antenna**",** Electromagnetics. 41, Iss. 2, pp. 119-130, Feb.2021.
3. H. Alam and **SK. M. Haque**, "Slot Antenna Miniaturization Using Folded Slot for ISM Band Applications," *IETE Journal of Research*, vol. 69, Iss. 8, pp. 5645-5653 Sept. 13, 2021.
4. B. Ghatak, S. Banerjee, **Sk Babar Ali**, R. Bandyopadhyay, N. Das, D. Mandal, B. Tudu. Design of a self-powered triboelectric face mask, Nano Energy. Vol. 79 105387, (2021).
5. B. Ghataka, S. Banerjee, **Sk Babar Ali**, N. Das, B. Tudu, P. Pramanik, S. Mukherji , R. Bandyopadhyay, Development of a low-cost portable aroma sensing system for identifying artificially ripened mango, **Sensors and Actuators A: Physical**. Vol. 331, 112964, (2021).
6. B Ghatak, H Naskar, SK Babar Ali, S Banerjee, A K Chakroborty, N Das, B Tudu, S Mukherjee, R Bandyopadhyay, Dysprosium particles decorated Ambroxol imprinted

polymer sensor to detect carbide-treated mango, Sensor and Actuator: A. Physical, Vol. 331 112964 (2021).

Year: 2022

1. **Md. Abdul Alim Sheikh**, Tanmoy Maity, Alok Kole "IRU-Net: An Efficient End-to-End Network for Automatic Building Extraction from Remote Sensing Images," IEEE Access, vol. 10, pp. 37811-37828, 2022. DOI: 10.1109/ACCESS.2022.3164401
2. **Md. Abdul Alim Sheikh**, Tanmoy Maity, Alok Kole, "Deep Learning Approach using Patch-based Deep Belief Network for Road Extraction from Remote Sensing Imagery," IAENG International Journal of Applied Mathematics, vol. 52, no. 4, pp760-775, 2022 (SCOPUS)
3. **Md. Abdul Alim Sheikh**, Tanmoy Maity, Alok Kole, "Man-Made Object Extraction from Remote Sensing Images using Gabor Energy Features and Probabilistic Neural Networks" ICTACT Journal on Image and Video Processing, vol. 13, No. 02, 2022, pp. 2849-2859. DOI: 10.21917/ijivp.2022.0407.
4. Anamika Hoque, Md. Sanaul Islam, Md. Mehebub Ali Khan, Soumen Ghosh, **Md. Asraful Sekh**, Sahid Hussain and Md. Akhtarul Alam, "Biphenyl Containing Amido Schiff base Derivative as a Turn-on Fluorescent Chemosensor for Al3+ and Zn2+ ions"., New Journal of Chemistry 46(33), July 2022, https://doi.org/10.1039/D2NJ03144B.
5. K. M. Parvez and **SK.M. Haque, "**Cross-Polarization reduction of wideband slot antennas in planar printed configuration**",** Electromagnetics, vol. 42, Iss. 6, pp. 401-410 Nov.2022.
6. **Ahmed, AHM Toufique**, HemantaNaskar, Sounak Banerjee, BarnaliGhatak, Nityananda Das, BipanTudu, and Rajib Bandyopadhyay. "Electrochemical sensor based on molecularly imprinted polymer embedded graphite electrode for detecting curcumin." *Sensors and Actuators A: Physical* 344 (2022): 113748.
7. JK Ray, S Sil, R Bera, **QM Alfred**,Application of 5G/6G Smart Systems to Overcome Pandemic and Disaster Situations, Computational Intelligence and Data Sciences, 155-175, 2022.

Year: 2023

1. **Md. Abdul Alim Sheikh**, Tanmoy Maity, Alok Kole, "A Deep Learning Approach for Road Extraction from Remote Sensing Imagery" ICTACT Journal on Soft Computing, vol. 13, No. 02, pp. 2879-2889, 2023. DOI: 10.21917/ijsc.2023.0398.
2. M. Dhara, S Banerjee, H Naskar, B Ghatak, SK Babar Ali, N Das, R Bandyopadhyay, B Tudu, Electrochemical Detection of Aloe Emodin using Platinum Electrode Based Voltammetry Technique, Journal of Material Sciences & Manufacturing Research, ISSN: 2754-4915, (2023)

3. Md Anoarul Islam, Manabendra Maity, JudhajitSanyal and Quazi Mohmmad Alfred,Comparative Study of 5G Signal Attenuation Estimation Models, *Journal of Information Systems and Communication.*Vol-11, No.42, pp, 84-93, 2023.

Year: 2024

1. A. Begam and **Md. A. Sekh,** "Optimization of Bidirectional Hybrid Passive Optical Networks FSO System with Different Data Format", International Journal of Emerging Technologies and Innovative Research, Vol. 11, Issue 5, pp. i763-i768 May 2024. https://www.jetir.org/papers/JETIR2405900.pdf.
2. E. Khan, M.ASR Laskar**,** K. M. Parvez, **SK. M. Haque**, "**3D-Structure Coupled Monopole Designs with Lower Frequency Resonance"**, ETRI Journal, pp. 1-12, March, 2024.
3. L.MD. AS Rahaman**,** K. M. Parvez, **SK. M. Haque**, "Design of Non-Planar Dipole Antenna for Enhanced Resonant Frequency Reduction", International Journal on Communications Antenna and Propagation, vol. 14, No. 2, 2024.
4. Dasgupta,Samhita **AHM Toufique Ahmed**, Ipshita Bhattacharjee, Shreya Firdousi,Don Biswas, Sumani Mukherjee, Rajib Bandyopadhyay, and BipanTudu. "Crafting a Graphite Electrode with Embedded Y_2O_3 Nanoparticles for the Electrochemical Detection of Amaranth in Candies." *IEEE Sensors Journal* (2024).
5. Dasgupta, Samhita, **AHM Toufique Ahmed**, Ipshita Bhattacharjee, Shreya Firdoushi, Don Biswas, Sumani Mukherjee, Bidya Mondal, Rajib Bandyopadhyay, and BipanTudu. "Electrochemical detection of indigo carmine in candies using Y2O3 nanoparticles infused graphite electrode." *Journal of Food Composition and Analysis* (2024): 106626.
6. Bhattacharjee, Ipshita, Samhita Dasgupta, Shreya Firdousi, Don Biswas, **AHM Toufique Ahmed**Sumani Mukherjee, Rajib Bandyopadhyay, and BipanTudu. "A Simple Nano $NiMn_2O_4$ Functionalized Graphite Electrode for Electrochemical Detection of Cinnamic Acid in Cinnamon Bark." *IEEE Sensors Journal* (2024).
7. Mukherjee, Sumani, Samhita Dasgupta, HemantaNaskar, Shreya Firdoushi, Ipshita Bhattacharya, **AHM Toufique Ahmed**, Deepak Kumar Das, Rajib Bandyopadhyay, and BipanTudu. "Development of an easy and economical carbon paste electrode for fisetin detection." *Innovation and Emerging Technologies* 11 (2024).
8. S Banerjee, M Dhara, H Naskar, B Ghatak, **Sk Babar Ali,** N Das, D K Das, R Bandyopadhyay, B Tudu, Selective Electrochemical Detection of Thymoquinone in Black Cumin Using Titanium Oxide-Modified Graphite Paste Electrode, Journal of Nano LIFE, vol. 14 no. 02, (2024).
9. S. Banerjee, M. Dhara, H. Naskar, B. Ghatak, **Sk Babar Ali,** N. Das, K. Chezyian, D. K. Das, B. Tudu, A. Chatterjee, B. Mondal, D. Mandal, S. Ghorai, R. Bandyopadhyay, B. Tudu, Detection of piperine content in black pepper using a molecular imprinted poly (N,

N-dimethylacrylamide) embedded graphite electrode: A machine learning based prediction approach. Journal of Microchemical, Vol. 207, 111914 (2024).

10. Md Anoarul Islam, ManabendraMaiti, Ardhendu Shekhar Biswas, Vivekananda Mukherjee, JudhajitSanyal,Quazi Md. Alfred, "Multi-model Machine Learning Based Pathloss Estimation fo Indoor 5G Signal Propagation at 12 GHz.", *International Journal of Intelligent Systems and Application in Engineering(IJISA)*, Vol 12, No.4, pp.86–95, 2024.
11. Jayanta Kumar Ray ,RamsundarGhorai, Sanjib Sil, Rabindra Nath Bera, , Quazi Mohmmad Alfred, "Analysis of BLER and Throughput for 5G System ", Procedia Computer Science , Vol 235C, pp. 3326-3339, 2024.

2.2.3 Research Article Presentation/Publication in Conferences (2018-till date)

Year: 2018

1. **Md. Abdul Alim Sheikh**, Alok Kole and Tanmoy Maity, "Classification of Remote Sensing Images into Man-made Objects and Natural Objects based on Statistical Variations" International Conference on Materials, Applied Physics & Engineering (ICMAE), 3-4 June, 2018, Indore, India.
2. **Md. Abdul Alim Sheikh**, Shariar Rahaman, Alok Kole, Tanmoy Maity and Chinmaya Kumar Pradhan, "Automatic Geospatial Objects Change Detection from Remote Sensing Images", IEEE International Conference on New Trends in Engineering & Technology (ICNTET2018), Chennai, Tamilnadu, India, 07-08, September, 2018.
3. **Md. Abdul Alim Sheikh**, Shariar Rahaman, Alok Kole, Tanmoy Maity and Chinmaya Kumar Pradhan, "Automatic Geospatial Objects Change Detection from Remote Sensing Images",IEEE International Conference on New Trends in Engineering & Technology (ICNTET2018), Chennai, Tamilnadu, India, 07-08, September, 2018.
4. Shariar Rahaman, **Md. Abdul Alim Sheikh**, Alok Kole, Tanmoy Maity and Dr. Chinmaya Kumar Pradhan "Automatic Geospatial Objects Classification from Satellite Images" International Conference on Emerging Technologies in Data Mining and Information Security, Kolkata, West Bengal, 23- 25 February, 2018. (The conference proceedings is published in Springer Advances in Intelligent Systems and Computing (AISC) Series)
5. Dr Chinmaya Kumar Pradhan, Shariar Rahaman, **Md. Abdul Alim Sheikh**, Alok Kole and Tanmoy Maity, "EEG Signal Analysis Using Different Clustering Techniques" INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES IN DATA MINING AND INFRMATION SECURITY**,** University of Engineering & Management, Kolkata, West Bengal, **Date: 23- 25 February, 2018. (**The conference proceeding is published in **Springer Advances in Intelligent Systems and Computing (AISC)**

Series, now indexed by: ISI Proceedings, DBLP. Ulrich's, EI-Compendex, SCOPUS, Zentralblatt Math, MetaPress, Springerlink**).**

6. **SK. M. Haqu and** K. M. Parvez, "Slot Antenna Miniaturization with Equal Electrical Path Length Using Different Shape of Loops",IEEE International conference on SPCOM, IISC Bangalore, July 16-19,2018.
7. K. M. Parvez, **SK. M. Haque and** E. Khan, "Copper Coin Loaded Miniaturized Slot Antenna**",** IEEE International conference on SPCOM, IISC Bangalore, July 16-19,2018.
8. K. M. Parvez**, SK. M. Haque** and S. Sinha "Miniaturization of slot antenna Using Meander Slit", IEEE 88th Vehicular Technology Conference, Chicago, USA 2018.

Year: 2019

1. *Md. Anoarul Islam, ManabendraMaiti, Md. Abdul Alim Sheikh, P. K. Ghosh, JudhajitSanyal, "Rain attenuation model for Ku band signals at tropical locations"* International Conference on Emerging Technologies for Sustainable Development - ICETSD '19, Government College Of Engineering and Leather Technology, Kolkata, WB, India, March 5-6, 2019.
2. *Md. Anoarul Islam, Kaushik Bhattachariya, Md. Abdul Alim Sheikh, P. K. Ghosh, ManabendraMaiti, JudhajitSanyal, "*Machine Learning Reinforced Ku-band Rain Attenuation Model for Tropical Locations" 2019 IEEE Global Conference for Advancement in Technology (GCAT) Bangalore, India. Oct 18-20, 2019.
3. K.M. Parvez, E. Khan, J. Akhtar**, SK. M. Haque**, " Slot Antenna Miniaturization Using Dielectric Loading Techniques",IEEE International conference NCC, IISC Bangalore, Feb 20-23, 2019.
4. K.M.Parvez, **SK M. Haque**, S. Mondal, P.K. Pathak and SK. H.Ali,"Slot Antenna Miniaturization And Wideband Using Square Loop Periodic Structures" IEEE International Conference on Microwave Integrated Circuits, Photonics and Wireless Networks (IMICPW-2019)**,**NIT Tiruchirappalli,May22-24th 2019
5. K.M.Parvez, **SK. M.Haque** and MD. A.S.R. Laskar,"Design of Electrically Small Dipole Antenna Using Orthogonally Attached Split Rings", IEEE10th ICCCNT 2019, IIT Kanpur, July 6-8th 2019.
6. K.M. Parvez, **SK. M. Haque** and E. Khan, "Frequency Reconfigurable Miniaturised Slot Antenna", IEEE10th ICCCNT 2019, IIT Kanpur, July 6-8th 2019.
7. M. Rahim and **Md. A. Sekh**,'Performance Analysis of a 8x10Gbps WDM system using DCF and FBG Combinational Schemes', Young Scientist Conference of 5th India International Science Festival (IISF-2019) at Biswa Bangla Convention Center, Kolkata, 5-7 Nov 2019, DOI : 10.13140/RG.2.2.36740.35206.
8. M. Rahim, A. Touhid Bar, A. Begum and **Md. A. Sekh**, 'Performance Analysis of Combinational Optical Amplifiers in 8x10Gbps WDM System', Int. Conf. on

Contemporary Works in Optics (CoOpt-2019), IISER Kolkata. Publisher : OSA & SPIE, 20-23 May 2019, DOI :10.13140/RG.2.2.18491.67361.

9. M. Rahim, A. Touhid Bar, A. Begum and **Md. A. Sekh**, 'Fiber Optic Link Design for 10 Gbps System and its Performance Characteristics', Nat. Conf. on Atomic, Molecular and Nano Sciences (NCAMNS-2019), Dept. of Physics, Aliah University, Kolkata, 3-4 April 2019. DOI: 10.13140/RG.2.2.11431.39842/1.
10. **Sk Babar Ali**, BarnaliGhatak, NilavaDebabhuti, Satyaki Pal, Prolay Sharma, BipanTudu, Rajib Bandyopadhyay, "Sensitive Detection of β-Myrcene in Mango Using Ethyl Cellulose Modified Quartz Crystal Microbalance Sensor", proceeding of **Materials Today**, 18 (2019), pp.1025-1032.
11. BarnaliGhatak, **SK Babar Ali**, Prolay Sharma, BipanTudu, PanchananPramanik, Soumyo Mukherji, Rajib Bandyopadhyay, 2018, "Selective and sensitive detection of Limonene in mango using molecularly imprinted polymer modified quartz crystal microbalance sensor",18th International Symposium on Electronic Nose, Dijon, France (ISOEN-2019), **IEEE, 2019**, DOI: 10.1109/ISOEN.2019.8823318.
12. BarnaliGhatak, HamontaNaskar, **SK. Babar Ali**, BipanTudu, PanchananPramanik, Soumyo Mukherji, Rajib Bandyopadhyay, "Development of Furaneol Imprinted Polymer Based QCM sensor for Discrimination of Artificially and Naturally Ripened Mango",18th International Symposium on Electronic Nose, Dijon, France (ISOEN-2019) **IEEE, 2019**, DOI: 10.1109/ISOEN.2019.8823431.
13. NilavaDebabhuti, Prolay Sharma, **Sk Babar Ali**, BipanTudu, Rajib Bandyopadhyay, MousumiPoddar Sarkar, Nabarun Bhattacharyya. "Discrimination of the maturity stages of Indian mango using QCM based electronic nose", 18th International Symposium on Electronic Nose, Dijon, France (ISOEN-2019**) IEEE, 2019**.
14. Jayanta Kumar Ray, Abhipray Singh, **Quazi Md. Alfred**, SubhankarShomeand RabindranathBera, *"5G URLLC Communication System with Cognitive Radio and Frequency Diversity Reception for improving Reliability in Smart Factory E-cranes operation"*,IEEE International Microwave and RF Conference 2019,IIT Bombay, Mumbai, India, December 13-15, 2019.
15. Jayanta Kumar Ray, Abhipray Singh, **Quazi Md. Alfred**, SubhankarShomeand RabindranathBera, *"5G URLLC Communication System with Cognitive Radio and Frequency Diversity Reception for improving Reliability in Smart Factory E-cranes operation"*,IEEE International Microwave and RF Conference 2019,IIT Bombay, Mumbai, India, December 13-15, 2019.

Year: 2020

1. Naskar, Hemanta, Sheikh Saharuk Ali, **AHM Toufique Ahmed**, Debangana Das, Shreya Nag, BipanTudu, and Rajib Bandyopadhyay. "Detection of curcumin using a simple and sensitive molecularly imprinted polymer (MIP) embedded graphite electrode based

electrochemical sensor." In *2020 International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET)*, pp. 1-4. IEEE, 2020.

1. M. Rahim and **Md. A. Sekh**, 'Analysis of 8 Channel WDM-FSO Link at 40 Gbps data rate using RZ Modulation, Paper ID: 76', Abstract Proceedings of Optics & Photonics: Theory & Computational Techniques (OPTCT 2020), at *IIT Roorkee on 26-27 December 2020*, Paper No. P-13, pp 28.
2. M. Rahim, **M. A Sekh**; 'Performance Analysis of 8×10 Gbps and 8×20 Gbps Dispersion Compensated WDM system for Long Distance Communication System with NRZ modulation', M. Rahim and Md. A. Sekh, ICFO-MIT Schools on the Frontiers of Light. Symposium on "Emergent phenomena in Moiré materials" 6-17 July 2020, ICFO – Massachusetts Institute of Technology (MIT) Schools on the Frontiers of Light, ICFO Barcelona, Spain. (Online Mode), SCOPUS Indexed. Available at: http://frontiers.icfo.eu/2020/07/04/mijanur-rahim/
2. M. Rahim and **Md. A. Sekh**, 'Performance Analysis of 8 channel and 16 channel WDM systems for Transmission over 1000 km at the Data Rate of 10 and 20 Gbps using DCF and FBG combinational schemes', The Optical Society- International OSA Students Network Conference (IONS-2020) at IIT Delhi. Publisher: OSA, Feb 29-March 2, 2020, DOI: 10.13140/RG.2.2.10054.09287.
3. Samhita Dasgupta, BarnaliGhatak, Sanjoy Banerjee, Sk Babar Ali, Jyotsna Dei, Bijay Kumar Behera, Runu Banerjee Roy, BipanTudu. "Development of Linseed Oil Based Quartz Crystal Microbalance Sensor for Detection of Trimethylamine", International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET) IEEE, 2020.
4. Jayanta Kumar Ray, Rounak Poddar, Rabindranath Bera and **Quazi Mohmmad Alfred,** IOTWR 2020, IETE Kolkata Center, 28-29 March 2020.
5. Md Anoarul Islam, ManabendraMaiti, **Quazi Md. Alfred**, Pradip Kumar Ghosh, JudhajitSanyal, Attenuation Modelling and Machine Learning Based SNR Estimation for 5G Indoor Link, *IEE VLSI Device Circuit and System 18-19 July 2020.*
6. Jayanta Kumar Roy, Surendra Kumar Sur, Pallabi Biswas, R.Bera, Sanjib Shil, Quazi Mohmmad Alfred, Integrated Access Backhaul Node supporting 5G and IoT Access, *IEEE 17th India Council International Conference (INDICON), 2020.*
7. Jayanta Kumar Roy, Pallabi Biswas, R.Bera, Sanjib Shil, **Quazi Mohmmad Alfred**, *TSN Enabled 5G Non Public Network for Smart System* in *5th International Conference on Computing , Computing and Security, ICCCS 2020*, Patna, India, October 14-16, 2020.
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10. Jayanta Kumar Roy, Surendra Kumar Sur, Pallabi Biswas, R.Bera, Sanjib Shil, Quazi Mohmmad Alfred, Integrated Access Backhaul Node supporting 5G and IoT Access, *IEEE 17th India Council International Conference (INDICON), 2020.*
11. Jayanta Kumar Roy, Pallabi Biswas, R.Bera, Sanjib Shil, **Quazi Mohmmad Alfred**, *TSN Enabled 5G Non Public Network for Smart System* in *5th International Conference on Computing , Computing and Security, ICCCS 2020*, Patna, India, October 14-16, 2020.

Year: 2021

1. H. Alam and **SK. M. Haque** "Design of miniaturized dual and tri-band **slot** antennas with bandwidth enhancement for various applications", Third International Conference on Advanced Computational and Communication Paradigms (ICACCP)**,** 22-24 March. 2021.
2. M. Rahim, A. Begam and **M.A Sekh**, 'Design of Dispersion Compensated with NRZ modulation based 8 and 16 channels WDM system for Long Haul Communication', presented in the international conference on Emerging Electronics and Automation (E2A) 2021, held on December 17-19, 2021 & to be published in the book series- Lecture Notes in Electrical Engineering (LNEE), Editor: P. H. J. Chong, A. Kalam, A. Pascoal and M. K. Bera, Springer Nature. Indexed By: Scopus, SCImago, Web of Science.
3. M.Rahim and **M.A Sekh**, 'Wavelength Conversion in 4 channel WDM system using the Cross Gain Saturation Effect of SOA', in Conference Abstract Proceedings of OPTICA (formerly OSA) IONS Ireland 2021International Conference, jointly organized by Tyndall & University College Cork and the University College Dublin, 9-11 Nov'2021.
4. M.S Khan, M.Rahim, S.S. Das and **M.A Sekh**, 'Channel Modeling of a LED based VLC system for a room size of 5m x 5m x 3m', in Conference Abstract Proceedings of OPTICA (formerly OSA) IONS Ireland 2021 International Conference, jointly organized by Tyndall & University College Cork and the University College Dublin, 9-11 Nov'2021.
5. M.Rahim and **M.A Sekh**, 'Evaluating the S-band Amplification performance of TDFA based 32channels WDM System using different TDFA Lengths with High Pump Powers', inXIV Annual Symposium of the Optical Society of India: Frontiers in Optics and Photonics (FOP21), organized by IIT Delhi, Sept 24-27, 2021.
6. Swagata Bhattacharya, **Somsubhra Talapatra**, DebotoshBhattacharrjee, and Amlan Chakrabarti. "A Scalable VLSI Architecture for Illumination-Invariant Heterogeneous Face Recognition." In 2021 8th International Conference on Electrical and Electronics Engineering,India, April 9-11, 2021, pp. 459-472, doi: 10.1007/978-981-16-0749-3_34
7. Jayanta Kumar Roy, R.Bera, Sanjib Shil, Pallabi Biswas, Ardhendu Sekhar Biswas, **Quazi Mohmmad Alfred,** International Conference on Emerging Applications of Information Technology , 25-27 Feb 2021, Kalyani , India.

8. 2. J. K. Ray, R. Bera, S. Sil and **Q. M. Alfred**, "Analysis of BER, FER in the coexistence scenario of 4G LTE and 5G NR," 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC), Solan, India, 2021, pp. 116-121.

Year: 2022

1. E. Khan, K. M. Parvez, and **SK. M Haque.** "Effect of Four Different Types of Loops in Presence of Conducting Cone." 2022 5th International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT).AMU, Aligarh, 2022.
2. **Ahmed, AHM Toufique**, Shreya Nag, Debangana Das, HemantaNaskar, Runu Banerjee Roy, Rajib Bandyopadhyay, and BipanTudu. "Detection of Andrographolide Using Platinum Electrode Based Electrochemical System." In *2022 2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET)*, pp. 1-5. IEEE, 2022.
3. Sanjoy Banerjee BarnaliGhatak, HamontoNaskar, Sukanta Ghosh, Milan Dhara, Sk Babar Ali, Nityananda Das BipanTudu, Rajib Bandyopadhyay, "Discrimination of Thymoquinone Using Near Infrared Spectroscopy Technique" 2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET) IEEE, 2022.
4. R Sultana, JK Ray, S Shaikh, **QM Alfred**,Study and Realization of Software Defined Radio Detection using Emona Sigex and Lab View platform for Cognitive radio Applications,2022 URSI Regional Conference on Radio Science (USRI-RCRS), 1-3.

Year: 2023

1. MD. A.S.R Laskar**,** K.M. Parvez, **SK. M. Haque**, "Design of compact patch antenna for TPMS Applications", 8th International Conference on Microelectronics, Electromagnetics and Telecommunications (ICMEET), NITM, LNNS, 2023.
2. MD. A.S.R Laskar**,** K.M. Parvez, **SK. M. Haque**, "Design of miniaturized and dual band slot antenna for wireless communication" 8th International Conference on Microelectronics, Electromagnetics and Telecommunications (ICMEET), NITM, LNNS, 2023.
3. MD. A.S.R Laskar**,** K.M. Parvez, **SK. M. Haque**, "Compact Slot Antenna Design for TPMS Applications" IEEE3rd International Conference on Applied Electromagnetics, Signal Processing & Communication (AESPC), November, 24-26, KIIT, Bhubaneswar, 2023.
4. **AHM Toufique Ahmed,** Samhita Dasgupta, Ipshita Bhattacharjee, Shreya Firdousi, Sumani Mukherjee, Rajib Bandyopadhyay, and BipanTudu, " Development of Simple and Sensitive CPE based Electrochemical Sensor for Quercetin", *International*

Conference on Systems and Technologies for Smart Agriculture (ICSTA 2023),Biswa Bangla Convention Centre, Kolkata,India, December 19-20, 2023.

5. Lipika Mondal, Syed SadiqueAnwer Askari, **Md Asraful Sekh** and ArefBillaha,'Performance Study of ZnO/SnO Thin Film Heterojunction Solar Cell', 8th Int. Conf. on Computers and Devices for Communication, CODEC-2023, December 2023, IEEE Xplore, DOI: 10.1109/CODEC60112.2023.10466046.
6. J. K. Ray, R.Ghorai, R. Bera, S. Sil and **Q. M. Alfred**,Analysis of BLER and throughput for 5G System , *International Conference on Machine Learning and Data Science(ICMLDE*), UPES , Dehradun, India 23-24 November 2023.
7. J. K. Ray, R.Ghorai, R. Bera, S. Sil and **Q. M. Alfred**,Evaluation of BLER and throughput during the coexistence of two 5G NR,*2nd International Conference on Human-Centric Smart Computing (ICHCSC 2023)* , UEM JAIPUR AND SPRINGER , 5-6 July, 2023.

Year: 2024

1. Anjumanara Begam, **Md Asraful Sekh**, 'Investigation and Demonstration of Hybrid Passive Optical Networks for Smart City Application', 5th Int. Conf. on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV), March, 2024, IEEE Xplore, DOI:10.1109/ICICV62344.2024.00019
2. SupratimSubhra Das and **Md Asraful Sekh**, 'Simulation and Modeling of Multi-Bounce Impulse Responses of Indoor Visual Light Communication Link for Any Arbitrary Optical Transmitter and Receiver Positions', Int. Conf. on Computer, Electrical & Communication Engineering (ICCECE), February 2024, IEEE Xplore, DOI:10.1109/ICCECE58645.2024.10497339
3. Anjumanara Begam and **Md Asraful Sekh**, 'Design of Secured Hybrid passive Optical Networks for FSO System', 4th Int. Conf. on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), January 2024, IEEE Xplore, DOI: 10.1109/ICAECT60202.2024.10469086.
4. Jayanta Kumar Ray, Rabindranath Bera, Quazi Mohmmad Alfred, Bikash Sharma, Sanjib Sil, Soumen Khatua,Evaluation of BER, Reliability and Throughput During the Vertical Coexistence of 4G LTE and 5G NR2024,I*EEE 4th International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA), 19th May, 2024.*

2.3 Completed and Ongoing Research Projects (2018-till date)

Sl. No	Name of the Project	Yearly Total Grant	Duration
1	DST-Inspire Faculty Fellowship	Rs. 22.00 Lakhs	5 years (2023-22028)
2	DST-Young Scientist	Rs. 12.98 Lakhs	2 years (2023-2025)

2.4 Awards and Recognitions (2018-till date)

Year of Award	Title of the innovation	Name of the Awardee	Name of the Awarding Agency with contact details
2024	Elevated to the grade of IEEE Senior Member	Dr. Quazi Mohmmad Alfred	IIIE Advanced Technology for Humanity
2023	8th South Asian Education Awards of Best Faculty in 2023	Dr Sk Babar Ali	Education Expo TV, Noida, India.
2023	Teaching Excellence Awards for Best Faculty in 2023	Dr Sk Babar Ali	Knowledge Research Academy, Coimbatore, India
2023	Outstanding Scientist	Dr. Quazi Mohmmad Alfred	INSO 2023
2022	Excellence Research	Dr. Hashibul Alam	Global Education and Corporate Leadership Awards 2022, Life Way Tech India
2021	Outstanding faculty in electronics for the contribution and achievement in the discipline of engineering 2021 by	Dr. Sk Babar Ali	Venus International Foundation.
2021	Best paper award to Millimeter Wave Based Reliable V2X Communication, , International Conference on Emerging Applications of Information Technology , 25-27 Feb 2021	Dr. Quazi Mohmmad Alfred	Computer Society of India
2021	Paper entitled “Miniaturized dual-band slot antenna design for GPS, amateur radio and WLAN applications” has been recognized as a top cited paper in: International Journal of RF and Microwave Computer-aided Engineering	Dr. Hashibul Alam	Wiley

2021	Excellence Research	Dr. Hashibul Alam	Global Education and Corporate Leadership Awards 2021, Life Way Tech India
2021	Excellence Research	Dr. Hashibul Alam	Global Annual Education & Research Excellence Awards 2021, Center for Professional Advancement
2018	Smart Agriculture using IoT	Dr. Quazi Mohmmad Alfred	DST-IIM Kolkata

2.5 Patents Published/Awarded (2018-till date)

Name of the Teacher	Patent Number	Title of the patent	Year of Award / publish of patent
Dr. Quazi Mohmmad Alfred	262/MUM/2009	Wideband Phased Array System With Programmable Capability	2019
Dr. Sk Babar Ali	Application no: 202031025622	A Novel Self-Powered Triboelectric mask	Published (2021) but Awaiting for awarded
Dr. Md. Abdul Alim Sheikh	Number: 6345660	AI BASED SKIN CANCER INSPECTION DEVICE	Grant date: 19 February 2024
Dr. Sk Babar Ali	Application no-202231044198	A formulation of eco e-paint for flexible electronics	Published (2022) but Awaiting for awarded
Dr. Sk Babar Ali	Application no-202231051735	A portable sensing device to detect carbide-treated mango based on Ambroxol-imprinted polymer electrode	Published (2022) but Awaiting for awarded
Dr. Sk Babar Ali	International Applicant Number: PCT/US21/32787	SELF-CHARGING MULTI-LAYER TRIBOELECTRIC PPE,	Published (2022) but Awaiting for awarded

2.6 Faculty Participation in OP/RC/FDP/STTP (2018-till date)

Year	Name of Faculty who attended the program	Title of the Programme	Duration
2022	Dr.Md. Abdul Alim Sheikh	Machine Learning & Deep Learning approach towards Computer Vision	One week

2022	Dr.Md. Abdul Alim Sheikh	MATLAB and LABVIEW Programming for Engineering Applications	One week
2022	Dr.Md. Abdul Alim Sheikh	Image Processing using MATLAB	Two weeks
2022	Dr.Md. Abdul Alim Sheikh	Embracing 5G: Issues and Challenges for Wireless Communication System	Oneday
2022	Mr. Sain Shaikh	One Day Workshop on "Embracing 5G: Issues and Challenges for Wireless Communication System"	30.08.222
2022	Mr. Sain Shaikh	Research Methodology	One day
2022	Mr. Sain Shaikh	5G Wireless Communication Technology	3 days
2022	Mr. Sain Shaikh	Designing and Modelling of IoT,ML and AI system	5 days
2022	Mr. Sain Shaikh	Inculcating UHV in technical education	8 days
2022	Mr. A.H.M. Toufique Ahmed	UGC-Sponsored Refresher course in Biomedical	16.02.2022 to 01.03.2022
2022	Dr. Md. Asraful Sekh	Embracing 5G: Issues and Challenges for Wireless Communication System	One Day (30.08.2022)
2022	Mr. Ikbal Ali	Designing and Modelling of IoT, AI & ML Systems	One week(1.8.20 to 5.8.20)
2021	Dr. Sabir Ali Mondal	Winter School in Ethics, Value and Society	2 weeks
2021	Dr. Sabir Ali Mondal	Electronic Systems for Sensors Applications	40 Hours
2021	Dr.Md. Abdul Alim Sheikh	Automation Technologies – Phase 2	One week
2021	Mr. Sain Shaikh	State level webinar on Gender Sensitization	One day
2021	Mr. A.H.M. Toufique Ahmed	UGC- Sponsored Faculty Induction Programme	22.02.2021 to 27.03.2021
2020	Dr.Md. Abdul Alim Sheikh	Wireless Communications and Machine Learning Algorithms	One week
2020	Dr.Md. Abdul Alim Sheikh	Emerging Trends in Sensors, Security and Smart Automation Systems (ETSSSAS 2020)	One week
2020	Dr.Md. Abdul Alim Sheikh	Recent Trends and Applications in Biomedical signal and Image Processing	One week
2020	Dr. Md. Asraful Sekh	online FDP on "Advanced Optical Access Networks and its Role in Smart Cities", 23-27 November, 2020, IIIT, Kota	One Week (23-27 Nov, 2020)

2020	Dr. Md. Asraful Sekh	Arduino with Tinkercad-Open Source Real-time Emulator	One Day (11.07.2020)
2020	Dr. Md. Asraful Sekh	Open Source Learning Management System: Modular Object-Oriented Dynamic Learning Environment (MOODLE)	One Week (16-20 June,2020)
2018	Dr. Sabir Ali Mondal	70thOP	4 weeks
2018	Mr. Somsubhra Talapatra	Fundamentals and Applications of Nanomaterials	01/01/2018 to 12/01/2018
2018	Mr. Sain Shaikh	Winter School	3 weeks
2018	Mr. A.H.M. Toufique Ahmed	3-Days Faculty Development Program for Student Induction (FDP-SI)	16.07.2018 to 18.07.2018
2018	Dr. Md. Asraful Sekh	Fundamentals & Applications of Nanomaterials (CU119)	Two Weeks (01-12 January, 2018)
2018	Mr. Anisur Rahaman	3-weeks Special Winter School on Electronics and Communication Engineering	26.02.2018 to 20.03.2018
2017	Mr. Sain Shaikh	OP 118	4 weeks
2017	Mr. Anisur Rahaman	4-weeks Orientation Programme	10.07.2017 to 05.08.2017

2.7 Academic and Research Collaboration

2.7.1 National

- IIT, Kharagpur, India
- Aligarh Muslim University, India
- Jadavpur University, Kolkata, India
- Calcutta University, Kolkata, India
- University of Burdwan, Burdwan, India
- Maulana Abul Kalam Azad University of Technology, Kolkata, India
- IIEST, Shibpur, Kolkata, India
- NIT, Durgapur, India
- NIT, Silchar, India
- CGCRI, Kolkata, India
- SAAMIR, Kolkata, India

2.7.2 International

- National University of Singapore, Singapore
- KAUST, Saudi Arabia
- Al Musanna College of Technology, Oman

2.8 Brief Profile of Technical Assistants

The Department has currently three Technical Assistants who takes care of various job activities related to laboratory and office activities.

Name	Designation	Date of Joining	Qualification	Lab Subjects
Dr. Hashibul Alam	Technical Assistant	08.06.2016	PhD, M.Tech, M.Sc, B.Sc	Comm System Lab, Transmission Line & Antenna Lab, RF & Microwave Lab
Sahanaj Sultana	Technical Assistant	21.06.2016	Diploma in Electronics and Telecommunication Engineering	Analog Electronics Lab, Digital Electronics Lab, Microprocessor & Microcontroller Lab
Moidul Islam	Technical Assistant	20.07.2020	Diploma in Electronics Engineering	Basic Electronics Lab, Photonic Devices&Optical communication Lab

3. Student Profile

3.1 Student Admission since 2018-19 Academic Sessions

Students get admission in B. Tech and M. Tech Programmes in ECE through Aliah University Admission Test (AUAT) conducted each year through a centralized admission process. Few seats are reserved B. Tech and Lateral Entry. Students can take admission in these seats throughentrance test conducted by the West Bengal Joint Entrance Examinations Board (WBJEEB) and the West Bengal. Following table shows the relevant data.

Year	Programme Name	Applicants	Intake Capacity	Admitted Students	Admitted Male Students	Admitted Female Students
2018	B. Tech	458	60	16	13	3
	Lateral Entry	301	6	6	3	3
	M.Tech	11	18	8	3	5
2019	B. Tech	780	60	41	35	6
	Lateral Entry	424	20	20	12	8
	M.Tech	20	18	10	6	4
2020	B. Tech	598	60	49	42	7
	Lateral Entry	1016	22	21	13	8
	M.Tech	21	18	8	5	3
2021	B. Tech	1083	60	54	46	8
	Lateral Entry	1087	17	15	12	3
	M.Tech	44	18	18	15	3
2022	B. Tech	879	60	60	48	12
	Lateral Entry	852	13	13	9	4
	M.Tech	27	18	7	4	3
2023	B. Tech	1048	60	48	41	7
	Lateral Entry	61	14	11	6	5
	M.Tech	29	18	12	8	4

3.2 Student Performance since 2018-19 Academic Sessions

3.2.1 Final Semester Success Rate from 2018-19

Academic Sessions	Name of the Programmes					
	B. Tech			M. Tech		
	Appeared	Passed	Pass Percentage	Appeared	Passed	Pass Percentage
2018-19	19	19	100	7	7	100
2019-20	35	35	100	4	4	100
2020-21	21	21	100	6	6	100
2021-22	31	31	100	3	3	100
2022-23	47	47	100	6	6	100
2023-24	53	41	77	3	1	33

3.2.2 Final Semester % of Marks Distribution from 2020-21 to 2022-23

Academic Sessions	Programmes	Range of Percentage of Marks					Total No. of Passed out
		≤60%	60.1-70.0%	70.1-80.0%	80.1-90.0%	≥90.1%	
2020-21	B. Tech	0	6	12	3	0	21
	M. Tech	0	0	3	3	0	6
2021-22	B. Tech	0	2	19	10	0	31
	M. Tech	0	0	3	0	0	3
2022-23	B. Tech	0	6	29	12	0	47
	M. Tech	0	2	4	0	0	6

3.3 PhD Student Status

3.3.1 Total PhD Student List

Sl. No.	Name of research scholars	Roll No.	Date of Joining/	Mode: Part/Full Time	Supervisor	Remarks
1	Sayanti Sinha	ECE152601	03.02.2016	Part time	Dr. SK. Moinul Haque	Registration seminar completed
2	Md. Ataur Safi Rahaman Laskar	ECE162601	14.02.2017	Part time	Dr. SK. Moinul Haque	Thesis Submitted
3	Dr. Hashibul Alam	ECE162602	14.02.2017	Part time	Dr. SK. Moinul Haque	Ph.D. Completed (16.03.2022)
4	SatyabrataMaiti	ECE162603	14.02.2017	Part time	Dr. SK. Moinul Haque	Course work completed
5	Khan Masood Parvez	ECE171601	12.10.2017	Full time	Dr. SK. Moinul Haque	Thesis Submitted
6	Enamul Khan	ECE181602	31.10.2018	Full time	Dr. SK. Moinul Haque	Registration seminar completed
7	Mijanur Rahim	ECE181603	31.10.2018	Full time	Dr. Md. Asraful Sekh	Preparing for thesis pre-submission
8	Anjumanara Begum	ECE181601	31.10.2018	Part time	Dr. Md. Asraful Sekh	Preparing for thesis pre-submission
9	Md. Anowarul Islam	ECE192601	26.06.2020	Part time	Dr. Quazi Mohmmad Alfred	Preparing for thesis pre-submission
10	SupratimSubhra Das	ECE192602	26.06.2020	Part time	Dr. Md. Asraful Sekh	Course work completed
11	Rogina Sultana	ECE192603	26.06.2020	Full time	Dr. Quazi Mohmmad Alfred	Course work completed
12	Lipika Mandal	ECE201601	16.06.2021	Part time	Dr. Md. Asraful Sekh	Course work completed
13	Sain Shaikh	ECE201602	16.06.2021	Part time	Dr. Quazi Mohmmad Alfred	Course work completed

14	Intekhab Hussain	ECE211601	01.03.2023	Part time	Dr. Quazi Mohmmad Alfred	Course work assigned
15	Sk Habibur Rahaman	ECE211602	01.03.2023	Part time	Dr. Babar Ali	Course work assigned
16	Soumen Khatua	ECE231601	22.05.2024	Part time	Dr. Quazi Mohmmad Alfred	Course work assigned

3.3.2. Awarded/Submitted Doctoral Thesis

1. **Scholar Name:** Hashibul Alam (Awarded on: 16.03.2022)

   Title of the Thesis: Miniaturized Slot Antenna and Bandwidth Enhancement for Wireless Communication

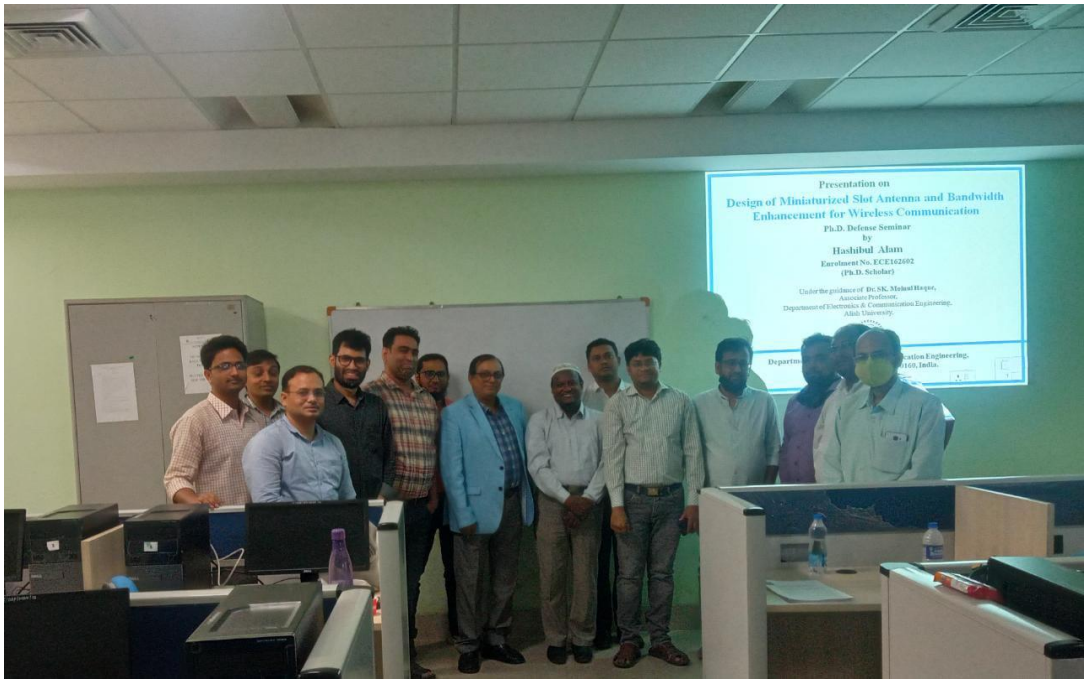
   Supervisor Name: Dr. Sk Moinul Haque
2. **Scholar Name:** Khan Masood Parvez (Pre-submission seminar on: 21.02.2024& thesis submitted on: 11.06.2024)

   Title of the Thesis: Cross-polarization Reduction and wide Bandwidth of planar and non-planar Antennas

   Supervisor Name: Dr. Sk Moinul Haque
3. **Scholar Name:** Md. AtaurSafi Rahaman Laskar (Pre-submission seminar on: 27.08.2024 & thesis submitted on: 30.09.2024)

   Title of the Thesis: Design And Analysis Of Miniaturized Efficient Antennas For Short Range Wireless Communication Including Vehicular Application

   Supervisor Name: Dr. Sk Moinul Haque

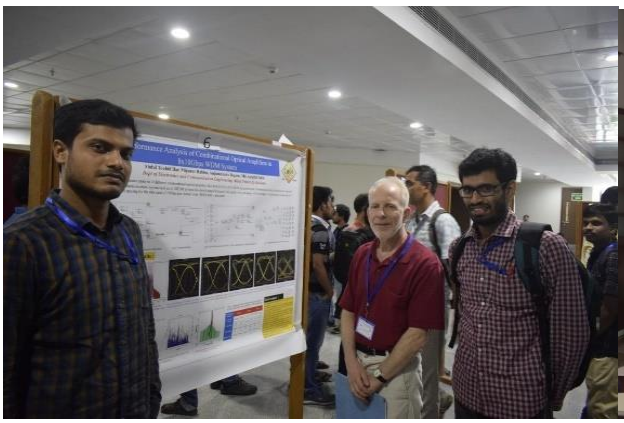


PhD student with External Expert, Supervisor, Faculty Members and other scholars after successful defending his PhD thesis presentation

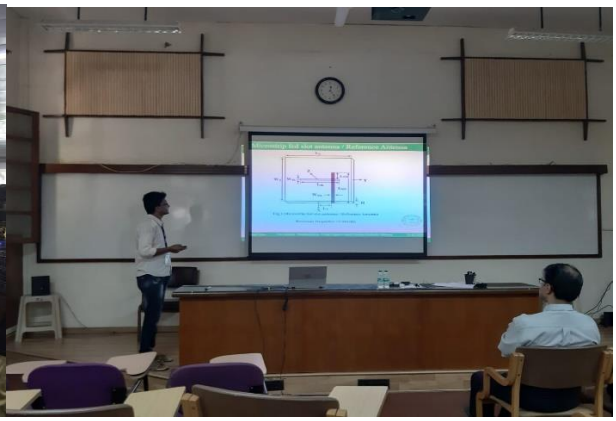
PhD student with External Expert and Supervisor
after his pre-submission seminar presentation

3.3.3. Student/Scholar Presentation in Conferences and Seminar

The Department encourages students and scholars to participate in various seminar, conferences, workshops to improve exposure and skill. Few photographs of such participation by our students are given below.



Student and Research Scholar presenting a poster paper IISER, Kolkata on 22.5.2019



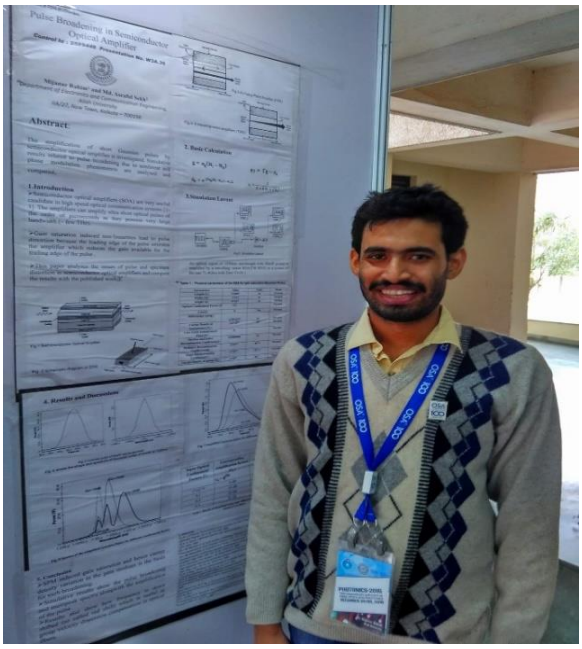
Research Scholar presenting a paper in IEEE International Conference 2018 at IISC Bangalore

যাদবপুর বিশ্ববিদ্যালয়ের প্রতিযোগিতায় প্রথম আলিয়ার বিটেকের পড়ুয়ারা

পুবের কলম প্রতিবেদক: যাদবপুর বিশ্ববিদ্যালয় আয়োজিত 'টেক ফেস্ট'-'অন লাইন' প্রতিযোগিতায় প্রথম স্থান অধিকার করলেন আলিয়া বিশ্ববিদ্যালয়ের ইঞ্জিনিয়ারিং বিভাগের ছাত্রছাত্রীরা। 'অন লাইন ইভেন্ট' প্রতিযোগিতায় আলিয়ার বিটেকের অংশগ্রহণকারী পড়ুয়াদের মধ্যে রয়েছেন আসিফ ইরফানুল্লাহ মাসুম, আনাম কাউসার, আবিদ হোসেন বিশ্বাস, রাজেশ পাল প্রমুখ।

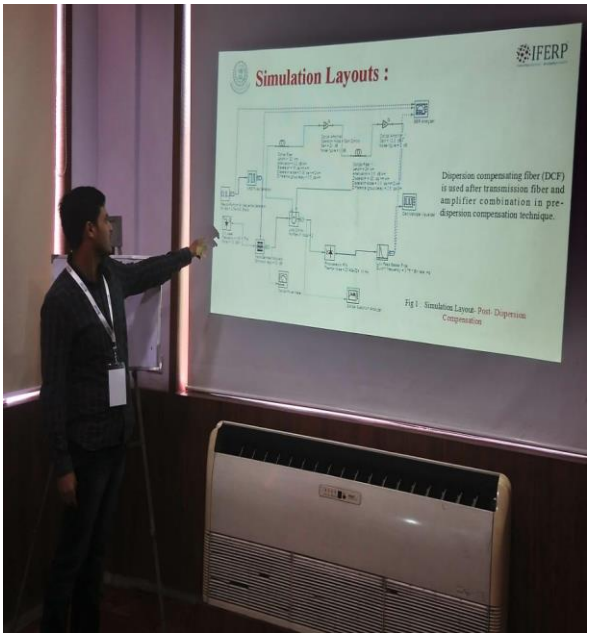
Students participated in Tech Fest at Jadavpur University and Awarded first prize, a local Newspaper covered the news.

PhD Student Participated Vehicular Technology Conference, Chicago, USA, August 2018 through DST Student Travel Grant



PhD Student presenting a paper in Photonics Conference at IIT Kanpur

B.Tech Student Presented Paper in IEEE Int. Conf. at Microwave Integrated Circuits, Photonics and Wireless Network (IMICPW-2019), NIT Trichy



M.Tech Student Presented Paper in International Conference ICMIAR 2019

3.4 Student Placement Record since 2018-19 Pass-out batches

Year of Passing	No. of Pass out Students	No. of students got placement Offer	Highest Salary Package	Name of the Company
2018-19	19	06	3.94 LPA	Amazon
2019-20	35	09	4.00 LPA	Cognizant
2010-21	23	04	7.6 LPA	PlanetSpark
2021-22	31	15	9.50 LPA	Infosys
2022-23	42	34	8.00 LPA	Koenig Solution Private Limited
2023-24	41	17	7.00 LPA	TCS

4. Departmental Activities

4.1 Regular Classes

Regular Classes of ECE department and of allied departments are taken by our faculty members during Autumn (July to December) and Spring (January to June) Semester. We have a good teacher-student ratio of about 16:1.The curriculum is significantly enriched through theoretical classes, practical classes, internship in industry, project work, seminar presentation and viva-voce. Class rooms teaching consist of traditional green board/white board teaching method as well as dynamic power point presentation, hands-on laboratory experiments and technical project implementation with the help of faculty supervisors. PG students need to go through exhaustive research-oriented project activities and dissertation preparation and presentation in presence of external examiner.

4.2 B.Tech and M.Tech Class Routine of Autumn (Odd) Semester (July-December 2024)

Dept. of Electronics & Communication Engineering
Aliah University
Routine for B.Tech 3rd, 5th and 7th Semester for the session 2024-2025, w.e.f. 15/07/2024

DAY	SEM	10.00- 11.00 am	11.00 am- 12.00 pm	12.00- 1.00 pm	1.00 - 1.30pm	1.30- 2.30 pm	2.30 - 3.30 pm	3.30 - 4.30 pm	4.30 - 5.30 pm
MON	7th ECE	MBAUGHU01 (ZP)	ECEUGPE10 (MH)			ECEUGPE19 (MH+HA) Grp A ECEUGPE21 (ST) Grp B			Remedial Class
	5th ECE	EENUGPC17 (AA)	ECEUGPC11 (AR)			ECEUGPC10 (SBA)	ECEUGPC14 (SBA) Grp A EENUGPC11 (RS) Grp B)		
	3rd ECE	UCCUGAU03 (ECE, EEN)		ECEUGPC02 (QMA)		MATUGBS03 (ECE, EEN)		Remedial Class	
TUE	7th ECE	ECEUGPR04 (Project I) (All Faculty)		ECEUGPE10 (MH)		ECEUGPE04 (AS)	ECEUGPE01 (ST)		Mentorship
	5th ECE	ECEUGPC13 (AR+HA) Grp B				EENUGPC17 (RS)		ECEUGPC10 (SBA)	
	3rd ECE	MATUGBS03 (ECE, EEN)		ECEUGPC01 (IKA)		CSEUGOE01 (GSH)	CSEUGPC02 (EA) Grp B		
	5th EEN					ECEUGPC14 (SSK) Grp B			
	3rd EEN			ECEUGPC01 (TFA)		ECEUGPC04 (TFA+SHS) Grp B			
	3rd CSE	CSEUGPC04 (SAM) Grp B					CSEUGPC02 (SAM)		
WED	7th ECE	Mentorship	MBAUGHU01 (ZP)			Soft Skill			
	5th ECE	ECEUGPC11 (AR)	CSEUGOE03 ( )			Soft Skill			
	3rd ECE	ECEUGPC04 (IKA+ SHS) Grp B CSEUGPC02 (Grp A) (MA)				ECEUGPC03 (ST)		Remedial Class	
	5th EEN	ECEUGPC10 (SSK)							
	3rd EEN	ECEUGPC01 (TFA)							
	5th CSE			ECEUGOE04 (SBA)					
	3rd CSE	CSEUGPC04 (SAM) Grp A							
THU	7th ECE	Mentorship	ECEUGPE04 (AS)			ECEUGPE07 (AAS)		ECEUGPR04 (Project I) (All Faculty)	
	5th ECE	CSEUGOE03	ECEUGPC12 (SAM)			EENUGPC08 (SM)	ECEUGPC13 (AR+HA) Grp A ECEUGPC14 (SBA) Grp B		
	3rd ECE	ECEUGPC03 (ST)	ECEUGPC01 (IKA)			ECEUGPC02 (QMA)		Remedial Class	
	5th CSE		ECEUGOE04 (SBA)						
	3rd CSE					CSEUGPC02 (SAM)			
	5th EEN		ECEUGPC10 (SSK)						
	3rd EEN	ECEUGPC01 (TFA)					ECEUGPC04 (TFA+SHS) Grp A		
	SEM	9.30-10.30 am	10.30-11.30 am	11.30 am -12.30 pm	12.30-2.00pm	2.00-3.00 pm	3.00-4.00 pm	4.00-5.00 pm	
FRI	7th ECE	Mentorship	ECEUGPE01 (ST)	ECEUGPE07 (AAS)		ECEUGPE19 (MH+HA) Gpr B ECEUGPE21(ST) Grp A			
	5th ECE	ECEUGPC12 (SAM)	EENUGPC08 (RP)			EENUGPC11 (RS) GrpA			
	3rd ECE	ECEUGPC04 (IKA+ SHS) Grp A				CSEUGOE01 (GSH)		Mentorship	
	5th EEN					ECEUGPC14 (SSK) Grp A			

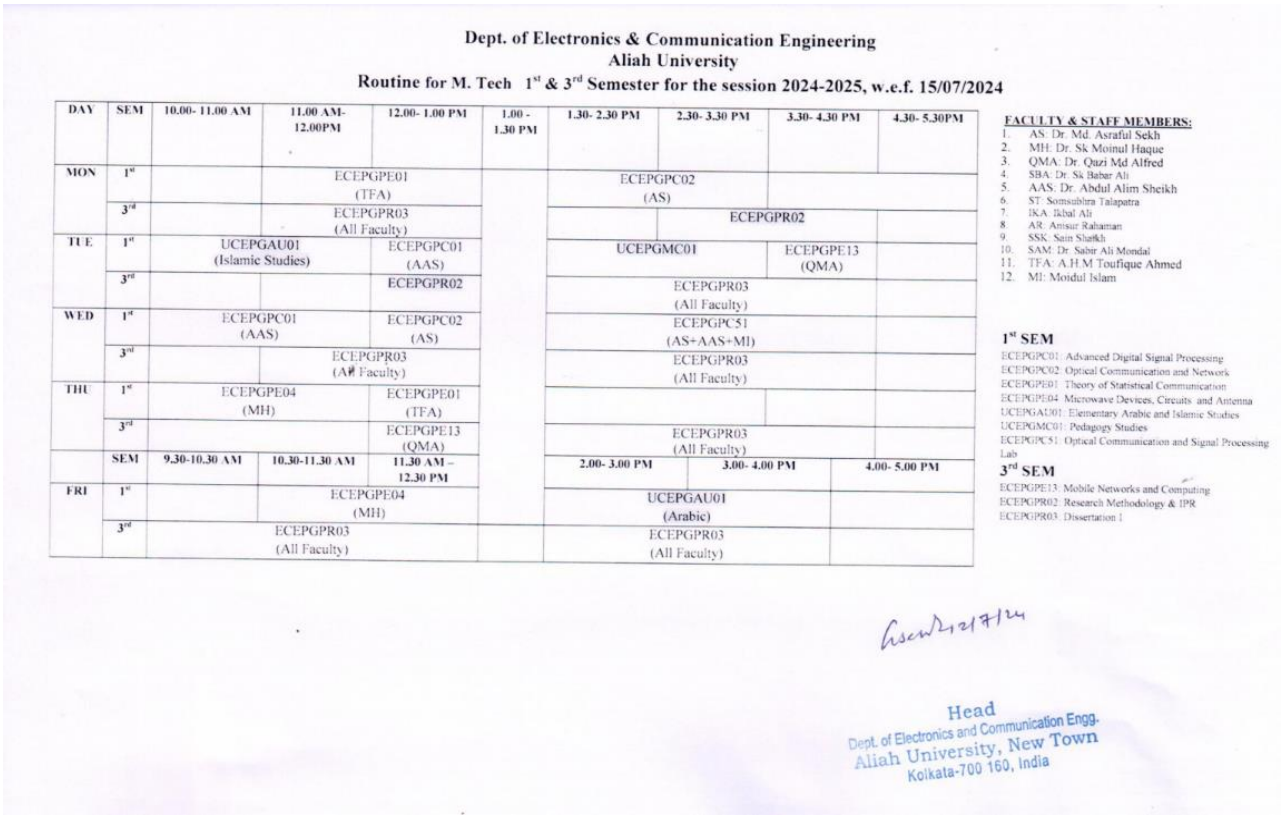
FACULTY & STAFF MEMBERS:
1. AS: Dr. Md. Asraful Sekh
2. MH: Dr. Sk Moinul Haque
3. QMA: Dr. Qazi Md Alfred
4. SBA: Dr. Sk Babar Ali
5. AAS: Dr. Abdul Alim Sheikh
6. ST: Somsubhra Talapatra
7. IKA: Ikbal Ali
8. AR: Ansur Rahaman
9. SSK: Sain Shaikh
10. SAM: Dr. Sabir Ali Mondal
11. TFA: Dr. A.H.M Toufique Ahmed
12. BG: Dr.Barnali Ghatak
13. GSH: Sk Golam Sarowar Hossain
14. MA: Dr. Md Azharuddin
15. AA: Aftab Alam
16. HA : Dr. Hashibul Alam
17. SHS: Sahinaj Sultana
18. MI: Motiful Islam

3rd SEMESTER
ECEUGPC01: Analog Electronics
ECEUGPC02: Signals and Networks
ECEUGPC03: Physics of Semiconductor Devices
UCCUGAU03: Indian Constitution
MATUGBS03: Engineering Mathematics III
CSEUGOE01: Data Structures & Algorithms Analysis
ECEUGPC04: Analog Electronics Lab
CSEUGPC02: Data Structure Lab
CSEUGPC02: Digital Logic
CSEUGPC04: Digital Logic Lab

5th SEMESTER
ECEUGPC10: Microprocessor & Microcontroller
ECEUGOE04: Microprocessor & its Application (CSE
ECEUGPC11: Communication System
ECEUGPC12: Micro and Nano Fabrication Process
EENUGPC17: Power Electronics Devices & Converter
EENUGPC08: Control Systems
CSEUGOE03: Object Oriented Programming
ECEUGPC14: Microprocessor & Microcontroller Lab
EENUGPC11: Control Systems Lab
ECEUGPC13: Communication System Lab

7th SEMESTER
MBAUGHU01: Industrial Economics & Management
ECEUGPE01: Information Theory & Coding
ECEUGPE10: RF & Microwave Engineering
ECEUGPE04: Satellite Communication
ECEUGPE07: Image Processing and Computer Vision
ECEUGPE19:: RF and Microwave Engineering Lab
ECEUGPC21: Electronic Design Automation Lab
ECEUGPR04 : Project I

Head
Dept. of Electronics and Communication Engg.
Aliah University, New Town
Kolkata-700 160, India



Dept. of Electronics & Communication Engineering
Aliah University
Routine for M. Tech 1st & 3rd Semester for the session 2024-2025, w.e.f. 15/07/2024

DAY	SEM	10.00- 11.00 AM	11.00 AM- 12.00PM	12.00- 1.00 PM	1.00 - 1.30 PM	1.30- 2.30 PM	2.30- 3.30 PM	3.30- 4.30 PM	4.30- 5.30PM
MON	1st		ECEPGPE01 (TFA)			ECEPGPC02 (AS)			
	3rd		ECEPGPR03 (All Faculty)				ECEPGPR02		
TUE	1st	UCEPGAU01 (Islamic Studies)		ECEPGPC01 (AAS)		UCEPGMC01		ECEPGPE13 (QMA)	
	3rd			ECEPGPR02		ECEPGPR03 (All Faculty)			
WED	1st	ECEPGPC01 (AAS)		ECEPGPC02 (AS)		ECEPGPC51 (AS+AAS+MI)			
	3rd		ECEPGPR03 (All Faculty)			ECEPGPR03 (All Faculty)			
THU	1st	ECEPGPE04 (MH)		ECEPGPE01 (TFA)					
	3rd			ECEPGPE13 (QMA)		ECEPGPR03 (All Faculty)			
	SEM	9.30-10.30 AM	10.30-11.30 AM	11.30 AM – 12.30 PM		2.00- 3.00 PM	3.00- 4.00 PM	4.00- 5.00 PM	
FRI	1st		ECEPGPE04 (MH)			UCEPGAU01 (Arabic)			
	3rd	ECEPGPR03 (All Faculty)				ECEPGPR03 (All Faculty)			

FACULTY & STAFF MEMBERS:
1. AS: Dr. Md. Asraful Sekh
2. MH: Dr. Sk Moinul Haque
3. QMA: Dr. Quzi Md Alfred
4. SBA: Dr. Sk Babar Ali
5. AAS: Dr. Abdul Alim Sheikh
6. ST: Somsubhra Talapatra
7. IKA: Ikbal Ali
8. AR: Anisur Rahaman
9. SSK: Sain Shaikh
10. SAM: Dr. Sabir Ali Mondal
11. TFA: A.H.M Toufique Ahmed
12. MI: Moidul Islam

1st SEM
ECEPGPC01: Advanced Digital Signal Processing
ECEPGPC02: Optical Communication and Network
ECEPGPE01: Theory of Statistical Communication
ECEPGPE04: Microwave Devices, Circuits and Antenna
UCEPGAU01: Elementary Arabic and Islamic Studies
UCEPGMC01: Pedagogy Studies
ECEPGPC51: Optical Communication and Signal Processing Lab

3rd SEM
ECEPGPE13: Mobile Networks and Computing
ECEPGPR02: Research Methodology & IPR
ECEPGPR03: Dissertation I

15/7/24

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Kolkata-700 160, India

4.3 Laboratory Resources

Sl.No.	Laboratory Name	Facilities		Experiments/Tests
		Hardware	Software	
1	Basic & Analog Electronics Lab	Power Supply 0-32V, 4.5/5.5 Digital Multimeter, 200 kHz High Precision LCR Meter, 3/12 MHz Arbitrary Function Generator, 20/30 MHz 2 Ch CRO, Bread Boards, Discrete Components (Diode/BJT/FET/Transformer/Zener etc.)	-	Analog circuit design and testing.
2	Digital Electronics and Logic Design Lab	Bread Boards, ICs, Digital Trainer Kit	-	Designing & testing of various combinational & sequential circuits.
3	Microprocessor and Microcontroller Lab	Microprocessor (8085) Kit, Microcontroller (8051) Kit, IC-8255, ADC and DAC kit, Display Device	-	Microprocessor & Microcontroller based circuits design, writing programs for hardware interfacing.
4	VLSI Design & FPGA Lab	Xilinx FPGA Boards (Spartan3E, Spartan6, Virtex5)	TANNER EDA16, Xilinx ISE14.5 Design Suite	Analog & Digital Circuit Simulation, Design & AnalysisVLSI architecture.

5	**Antenna, Transmission Line and Microwave Engg. Lab**	**Antenna Trainer(with variable frequency), Transmission Line Trainer, RADAR Trainer, Microstrip Antenna Trainer, Microwave Test Bench, EMI/EMC Trainer, Klystron Power Supply, Spectrum Analyzer, SWR Meter**	**HFSS Software**	**Radiation Pattern, EMI/EMC Study, Simulation using HFSS.**
6	**Communication Lab**	**70/100 MHz DSO, 200 MHz Spectrum Analyzer Analog/Digital Communication Trainer Kits,**	**-**	**Design & Analysis of Analog & digital communication circuits.**
7	**Fiber Optics/Optical Communication Lab**	**(i)Basic fiber optic trainer Kit(02) ii)Fiber optic analog comm. Tx & Rx and fiber optic digital comm. Tx &Rx (02+02+02) iii) Laser diode and photo diode based fiber optic trainer Kit (02) iv)Optical Power meter (01)**	**OptiSystem 21.0- optical communication & amplifier design software (5 users)**	**Fiber optics-based design, analysis & measurement, Simulation study of FSO/WDM/BPON Networks using OptiSystem software.**
8	**Digital Signal Processing Lab**	**(i)The DSP Lab is equipped with 30 PCsthat are equipped with all the necessary software and interconnected through a LAN. They are used to carry out the experiments and other research activities. DSP Starter Kit (DSK) TMS320C6748 with Code Composer Studio - 32-Bit Floating Point Processor (ii)DSP Starter Kit (DSK) TMS320C6713 with Code Composer Studio - 32-Bit Floating Point Processor (MATLAB/SIMULINK Compatible) (iii) DSP Starter Kit (DSK) TMS320C6416 with Code Composer Studio - 32-Bit Floating Point Processor (MATLAB/SIMULINK Compatible) (iv) DM6437 Digital Video Development platform- for Audio, Image/ Video Applications (MATLAB/SIMULINK Compatible)**	**MATLAB 8.1 License No. 834402 Activation Type: Network Concurrent User Term: Perpetual Release: R2013a**	**Various DSP based design & analysis of communication and image processing applications.**
9	**Research Lab**	**-**	**NetSim V13.0**	

Students doing practical class in Basic Electronics Laboratory

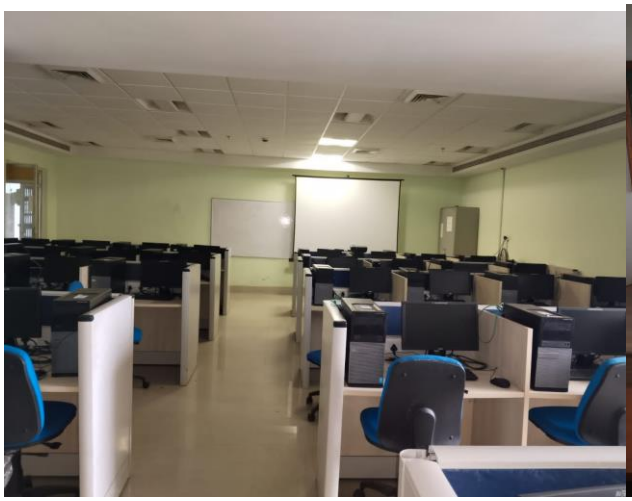
Students doing practical class in Analog Electronics Laboratory

Teacher demonstrating the students in doing practical class in Communication Laboratory

Students doing practical class in Antenna and Microwave Laboratory

Microprocessor & Microcontroller Laboratory

Optical Fiber Communication Laboratory



Digital Signal Processing Laboratory

Smart Class Room

4.4 Seminar/Workshop/Training Session Organized by the Department

4.4.1 One-Day **Workshop on "MATLAB**" was organized by the Department of Electronics and Communication Engineering, Aliah University, on 25.09.2019. The **Resource Person was** Mr. Vikram Kumar, Founder Member, PaDaayi, Associated with Bharati Script.

4.4.2 An online **Practical Workshop on** "**Arduino with Tinkercard-Open Source Real Time Emulator"** was organized by the Department of Electronics and Communication Engineering, Aliah University, on 11.07.2020. The **Resource Person was Mr. KanagarajVenusmay, Al Musanna College of Technology, Oman**.

4.4.3 A One-Day **Workshop on**"**Embracing 5G: Issues and Challenges for Wireless Communication System**" was organized by the Department of Electronics and Communication Engineering, Aliah University in collaboration with Elmax Systems & Solutions, on 30.08.2022. The **Resource Person was**

4.4.4 **Two-Day Training and Demonstration of NETSIM Software** (standard version) has been conducted by Department of Electronics and Communication Engineering, Aliah University in association with **TETCOS LLP (OEM of NETSIM)**, Bangalore on **21-22 September, 2022**

4.4.5 One-day **hands-on demonstration of various lab instruments e.g. Arbitrary Function generator, Digital Oscilloscope, Handheld Oscilloscope, Mixed Signal Oscilloscopes in collaboration with M/s. Arihant Trading Company**, Kolkata on **01.03.2023**.

4.4.6 **One-day Training and Demonstration on** "**OptiSystem (Version v19.0) Software and its applications on various Engineering Fields**" has been conducted in collaboration with Optiwave, Canada and Dept. of Electronics and Communication Engineering, Aliah University on **02.03.2023.**

4.4.7 One Day **Workshop on "Recent Trends in Innovation and Technology"** was organized by the Department of Electronics and Communication Engineering, Aliah University in association with the **Institution's Innovation Council (IIC), Aliah University** on 07.12.2023. The **Resource Person was**

4.4.8 Two days workshop on **"Human-computer interaction (NW-HCI 2024)" jointly** organized by Dept. of Electronics and Communication Engineering and Deparment of Computer Science & Engineering, Aliah University held at Seminar Hall, New Town campus, Aliah University on **September 11-12, 2024.**

Two Days National Workshop on
Human-Computer Interaction (NW-HCI 2024)

About the Workshop:

The National Workshop on Human-Computer Interaction (HCI) aims to provide an in-depth understanding of the latest trends, challenges, and research in the field of HCI.This workshop will focus on the interaction between humans and computers, covering both theoretical and practical aspects to enhance the user experience, usability,and accessibility of computing systems.

Participants will engage with leading experts, explore cutting-edge technologies, and collaborate on projects that will advance their knowledge and skills in designing user-friendly systems.

Chief Patron
Shri M. Wahab IPS (Rtd.)
Hon'ble Vice Chancellor, Aliah University

Patrons
Prof. Parveen Ahmed Alam
Registrar, Aliah University

Prof. Nargis Ahmed
Dean, Faculty of Science & Technology, Aliah University

Organizing Chairs
Dr. Abhishek Das
Head of the Dept., CSE, Aliah University

Dr. Sk Babar Ali
Head of the Dept.,ECE, Aliah University

Convenors
Mr. Zafar Sarif,CSE
Dr. Md Abdul Alim Shaikh, ECE

Program Committee Dept. Of CSE
Dr. Sk Md Obaidullah
Dr. Souvik Sengupta
Dr. Sk Md Mosaddek Hossain
Dr. Sk Golam Sarowar Hossain
Dr. Zeenat Rehena
Dr. Ayatullah Faruk Mollah
Dr. Tapas Bhadra
Dr. Khondekar Lutful Hassan
Dr. Saiyed Umer
Dr. Md Azharuddin
Mrs. Amina Khatun
Dr. Moumita Chatterjee
Mr. Ahsan Mullick
Dr. Nashreen Nesa

Program Committee Dept. Of ECE
Dr. Sk Moinul Haque
Dr. Quazi Mohammad Alfred
Dr. Md. Asraful Sekh
Dr. Sabir Ali Mondal
Mr. Ikbal Ali
Mr. Somsubhra Talapatra
Mr. Sain Shaikh
Mr. Anisur Rahaman
Mr. AHM Toufique Ahmed
Dr. Barnali Ghatak

Workshop Highlights:

- Introduction to HCI: Understanding the basics of Human-Computer Interaction.
- User-Centered Design: Techniques and methodologies for creating user-friendly interfaces.
- Cognitive Psychology in HCI: How human cognition affects interaction with technology.
- Usability Testing: Methods and tools for evaluating the usability of systems.
- Interactive Systems and Prototyping: Hands-on sessions on designing and prototyping interactive systems.
- Emerging Trends in HCI: Exploring new technologies like AR/VR, AI, and wearable computing in HCI.

One-Day
Workshop on (Online Mode)

Embracing 5G : Issues and Challenges for Wireless Communication System

30th August 2022

Organized by
Deparment of Electronics and Communication Engineering, Aliah University

In collaboration with
Elmax Systems & Solutions

Aliah University

IIA/27, New Town, Kolkata-700160

Resource Person

1. **Prof. Rabindra Nath Bera**
   Professor & Head, Department of Artificial Intelligence (AI) & Data Science, Sikkim Manipal Institute of Technology.
2. **Mr. Pickon Majumder**
   AE, Elmax Systems and Solutions
3. **Mr. Shubhrajyoti Moitra**
   AE, Elmax Systems and Solutions

Registration

- Students (ECE & EE Dept.) from Technical University and Affiliated Engineering Colleges are eligible to participate
- Registration is **FREE**
- **e-certificate** for participation
- All participants are requested to fill the registration form in the following online **registration link**

Registration Link:
https://forms.gle/U96CvscwSqKodCjp6

Last date for registration:
30th August 2022 (till 11:00 AM)
You can reach us at: 8617039150/7001123646

Chief Patron

Prof. (Dr) Sk Abu Taher Kamruddin
Vice-Chancellor, Aliah University

Patron

Dr. Syed Nurus Salam
Registrar, Aliah University

Dr. Babulal Seal
Dean, Science and Technology, Aliah University

Coordinator

Dr. Md. Asraful Sekh
Head, Dept. of Electronics & Comm. Engineering, Aliah University

Dr. Quazi Mohmmad Alfred
Associate Professor, Dept. of Dept. of Electronics & Comm. Engineering, Aliah University

Co-Coordinator

Md. Abdul Alim Sheikh, Assistant Professor, Dept. of Electronics & Comm. Engineering, Aliah University

Organizing Committee Members

Dr. SK. Moinul Haque, Associate Professor, Dept. of ECE
Dr. Sk. Babar Ali, Associate Professor, Dept. of ECE
Somsubhra Talapatra, Assistant Professor, Dept. of ECE
Ikbal Ali, Assistant Professor, Dept. of ECE
Anisur Rahaman, Assistant Professor, Dept. of ECE
Sain Shaikh, Assistant Professor, Dept. of ECE
Dr. Sabir Ali Mondal, Assistant Professor, Dept. of ECE
A.H.M Toufique Ahmed, Assistant Professor, Dept. of ECE

INSTITUTION'S INNOVATION COUNCIL

One Day Workshop on

Recent Trends in Innovation and Technology

7th December 2023

Organized by

Department of Electronics and Communication Engineering, Aliah University

In Association with

Institution's Innovation Council(IIC), Aliah University

Aliah University
IIA/27, New Town, Kolkata-700160

Resource Persons

1. **Dr. Golam Haider**
   Group Leader
   Institute for Metallic Materials
   Leibniz Institute for Solid State and Materials Research Dresden
   Helmholtzstr. 20, 01069 Dresden, Germany
2. **Dr. Mohammad Zubair Ahmad**
   Entrepreneur, Trainer and Management Consultant,
   Head Partnerships, Jazaa Business Services Ltd., New Delhi &
   Entrepreneurship Coach & Business Consultant, Integrated Facilitation Services, New Delhi

Registration

- Students (ECE, CSE& EE Dept.) from Technical University and Affiliated Engineering Colleges are eligible to participate
- Registration is **FREE**
- **Certificate** for participation
- All participants are requested to fill the registration form in the following online **registration link**

Registration Link & QR:
https://forms.gle/AZwMFXoQK5DESXDaA

Last date for registration:
6thDecember 2023 (till 11:59PM)
You can reach us at: 8617039150/7001123646

Chief Patron

Mr. M. Wahab, (Retd. IPS)
Vice-Chancellor, Aliah University

Patron

Dr. Syed Nurus Islam
Registrar, Aliah University

Prof. Sk Monowar Hossain
Dean, Faculty of Science and Technology, Aliah University

Co-ordinators

Dr. Md. Asraful Sekh
Head, Dept. of Electronics & Comm. Engineering
Aliah University

Dr.Quazi Mohmmad Alfred
Associate Professor, Dept. of Electronics & Comm. Engineering, Aliah University

Co-coordinators

Dr.Md. Abdul Alim Sheikh, Assistant Professor, Dept. of Electronics & Comm. Engineering, Aliah University

A.H.M Toufique Ahmed, Assistant Professor, Dept. of Electronics & Comm. Engineering, Aliah University

Mr. Sain Shaikh, Assistant Professor
Dept. of Electronics & Comm. Engineering, Aliah University

Organizing Committee Members

Dr. SK. Moinul Haque, Associate Professor, Dept. of ECE
Dr. Sk. Babar Ali, Associate Professor, Dept. of ECE
SomsubhraTalapatra, Assistant Professor, Dept. of ECE
Ikbal Ali, Assistant Professor, Dept. of ECE
Anisur Rahaman, Assistant Professor, Dept. of ECE
Dr. Sabir Ali Mondal, Assistant Professor, Dept. of ECE

4.5 Other Events like Fresher's, Farewell Programmes and Teachers' Day Celebration in the Department

The students of the department organize Fresher's welcome and Farewell Programs to well come newly admitted students and offer farewell to graduation students. They also celebrate Teachers' Day with great enthusiasm. The events are vibrate featuring variety of cultural activities and sharing views of students and teachers. These events serve and foster the event management capabilities among the students.

Celebrating International Day of Light on 16.05.2019

Group photo resource person with participants

Students visiting Aircraft museum, Kolkata

Celebrating Teachers Day

Students enjoying picnic

4.6.Students' Extra Curricula Achievements

Name- Md Tahir Hossain , 3rd ECE Student
Award- Representing West Bengal and Sikkim directorate (NCC) at AITSC-2024

Mostaque Ahammed, 2nd Year ECE student in winner's team at State level Football tournament at LPU

5. Alumni Profile

5.1 Notable Alumni in Higher Studies

Sl. No.	Batch and Year	Student Name	Name and Place of Study
1	B.Tech- 2013	MD SHAHEN REZA	M.Tech, Aliah University
2	B.Tech- 2013	ARIF IKBAL KHAN	M.Tech, Aliah University
3	B.Tech- 2014	SABIR AKHTAR MALLICK	M.Tech, Aliah University
4	B.Tech- 2014	RIZWAN AHMED	M.Tech, Aliah University
5	B.Tech- 2015	SHABNAM PARVEEN	M.Tech, Aliah University
6	B.Tech- 2015	GOFFAR ALI SARKAR	M.Tech, IIEST, Shibpur
7	B.Tech- 2015	FARIA HAQUE	M.Tech, Aliah University
8	B.Tech- 2015	SHARIAR RAHAMAN	M.Tech, Aliah University
9	B.Tech- 2015	SABIR UL ALAM	M.Tech, AOP, CU, PhD Hong Kong, Post-Doc Helmholtz Munich, Germany
10	B.Tech- 2015	SYED ENAMUR RAHAMAN	M.Tech, BU, Ph.D, IIT(ISM) Dhanbad Post-Doc, IIT Madras, India
11	B.Tech- 2016	MONIKA PARVIN	M.Tech, Jadavpur University
12	B.Tech- 2016	MANIUL HAQUE	M.Tech, BU, JRF, IIT KGP, PhD, New Castle University, UK
13	B.Tech- 2019	UROOJ AKHTAR	M.Tech, Aliah University
14	B.Tech- 2019	MD SAHIL KHAN	M.Tech, Aliah University
15	B.Tech- 2019	MD FAIZAN	M.Tech, Aliah University
16	B.Tech-2020	MUSLIMA KHATUN	M.Tech, Aliah University
17	B.Tech-2020	MISBAH ALAM	M.Tech, Aliah University
18	B.Tech-2020	SALMA KHATUN	M.Tech, Aliah University
19	B.Tech-2021	ABUL BASAR SHAIKH	M.Tech, Aliah University
20	B.Tech-2021	TAMSEEL ZOHRA	M.Tech, Aliah University
21	B.Tech-2021	KAJI RAJU	M.Tech, Aliah University
22	B.Tech-3021	SHAKIL IKBAL	M.Tech, Aliah University
23	B.Tech-2022	SAHELI GHOSH	M.Tech, Jadavpur University
24	B.Tech-2022	AKASH SK	M.Tech, Jadavpur University

25	M.Tech-2022	SHIHAB UL ISLAM	M.Tech, Aliah University
26	B.Tech-2022	NAYAN BARUA	M.Tech VLSI (Heritage Institute of Technology, Kolkata)
27	B.Tech-2022	ABDULLAH SHAIKH	MESE from Jadavpur University
28	B.Tech-2023	MD MIJANUR MOLLA	M.Tech, Aliah University
29	B.Tech-2023	SAHIL ALI	M.Tech (IIT Goa,2026)
30	B.Tech-2024	MD SARFARAZ ALAM	M.Tech, Aliah University
31	B.Tech-2024	JAKA TASNIM	M.Tech, Aliah University
32	B.Tech-2024	SUNIRNAY CHATTERJEE	M.Tech, Aliah University
33	B.Tech 2024	AYSHIQUE ISHAN	MS, Japan
34	B.Tech 2024	ANKITA DAS	M.Tech , Calcutta University
35	B.Tech 2024	SAMIUL HAQUE	PhD, NIT Silchar
36	B.Tech 2024	TASNEEM REZA	M.Tech Jadavpur University

5.2 Notable Student Placement since 2018 Onwards

Sl. No.	**Batch and Year**	**Student Name**	**Placement**
1	B.Tech- 2013	MD SHAHEN REZA	GOVT SERVICE (JUDICIARY DEPARTMENT)
2	B.Tech- 2013	ARIF IKBAL KHAN	Software Engineers @ Societe Generale. Bangalore
3	B.Tech- 2014	SABIR AKHTAR MALLICK	Assistant Professor, Dream Institute of Technology
4	B.Tech- 2014	RIZWAN AHMED	Business Development Executive at Proptality Pte Ltd (Singapore)
5	B.Tech- 2015	SHABNAM PARVEEN	Assistant Professor, Indian Maritime University, Kerala
6	B.Tech- 2015	GOFFAR ALI SARKAR	Lecturer at Kalimpong Government Polytechnic, Kalimpong
7	B.Tech- 2015	FARIA HAQUE	Air Traffic Control Officer, Airports Authority of India, Current status- Assistant Manager
8	B.Tech- 2015	SHARIAR RAHAMAN	DEO, Calcutta High Court
9	B.Tech- 2016	MONIKA PARVIN	BMW R&D
10	B.Tech- 2019	PRATIK PATHAK	Consultant, Deloitte India
11	B.Tech- 2019	SABANA MONDAL	Systems Engineer, Tata Consultancy Services Ltd.

12	B.Tech- 2019	SAYANTAN DEB	Program Management Associate, Amazon Payments
13	B.Tech- 2019	UROOJ AKHTAR	Software Engineer Trainee,Cognizant Technology Solutions,
14	B.Tech- 2019	MD SAHIL KHAN	System Engineer at Infosys
15	B.Tech- 2019	MD FAIZAN	Senior Associate at Wipro
16	B.Tech- 2019	ZENIFER BISWAS	Software Engineer, Cognizant
17	B.Tech- 2019	PRATIK KUMAR PATHAK	Software Engineer, Accenture
18	B.Tech-2020	MD FAISAL AHMED	Accenture (security delivery associate)
19	B.Tech-2020	MD ASIF	STARTING A COMPANY (SHARE MARKET)
20	B.Tech-2020	SK RAJIB ALI	Works at Infosys
21	B.Tech-2020	MD AZIM	Associate, Cognizant Technology Solutions
2232	B.Tech-2020	CHOUDHARY AFZAL ANWAR	Security Delivery Analyst in Accenture
24	B.Tech-2020	MD ASIF	Software Engineer at TCS
25	B.Tech-2020, M.Tech-2022	MUSLIMA KHATUN	Premium Account Manager at PhonePe
26	B.Tech-2020	MISBAH ALAM	Embedded Hardware Engineer
27	B.Tech-2020	MD ZEESHAN	Software Engineer, Accenture
28	B.Tech-2021	SK IBRAR AHMED	ASE, TCS
29	B.Tech-2021, M.Tech-2023	KAJI RAJU	TCS, SYSTEM ENGINEER
30	B.Tech-2021	ABDUL WAHED REJA	System Engineer, Tata Consultancy Services
31	B.Tech-2022	MD WALI SHAKIL	Software Engineer, HCL Technologies
32	B.Tech-2022	WAZHAT JAHAN	Software Engineer at HCL technologies
33	B.Tech-2022	MD NAIYAR AFZAL	Data Engineer, Infosys
34	B.Tech-2022	ANUSHUA NANDY	HCL Tech
35	B.Tech-2022	MD NAFISH ALAM	INFOSYS AS A SPECIALIST PROGRAMMER
\36	B.Tech-2022	ARIJIT PANDIT	Graduate Engineer Trainee, Sterlite Technologies
37	B.Tech-2022	ANTARA GHOSH	Associate Test Engineer of Bassetti India
38	B.Tech-2022	HAMZA SHAHNAWAZ	Associate System Engineer, TCS
39	B.Tech-2022	AMRITA MAITY	Assistant Engineer in Ericsson
40	B.Tech-2022	NUZHAT JAHAN	Project Engineer at Wipro
41	B.Tech-2022	SAHELI GHOSH	Vertiv Energy Pvt Ltd

42	B.Tech-2023	MD AMIR SOHAIL	Software Engineer at Brainware Infotech.
43	B.Tech-2023	ZOHRA NIGAR	Analyst in HCL Tech
44	B.Tech-2023	NAJMUR HOSSAIN KAYAL	Associate Software Engineer, Cdata Software India Pvt Ltd
45	B.Tech-2023	MD NAZIR RAZA	VVDN TECHNOLOGY As a Automation Testing Engineering (ATE)
46	B.Tech-2023	SOUGATA DE	Junior Engineer, EMMVEE Energy Pvt Ltd
47	B.Tech-2023	DIPANJAN DAS	TCS (.Net developer)
48	B.Tech-2023	MD FARDEEN KHAN	Assistant System Engineer trainee at TCS.
49	B.Tech-2024	ARKAPRAVA MAJEE	Assistant system engineer TCS
50	B.Tech-2024	MD IMRAN NAZIR	TCS
51	B.Tech-2024	MD HAMZA OMER	Quality Assurance Executive, Kaynes Technology India limited
52	B.Tech-2024	SANKHADEEP MITRA	Project Manager, Kaynes Technology India Limited

Aliah University, New Town Campus