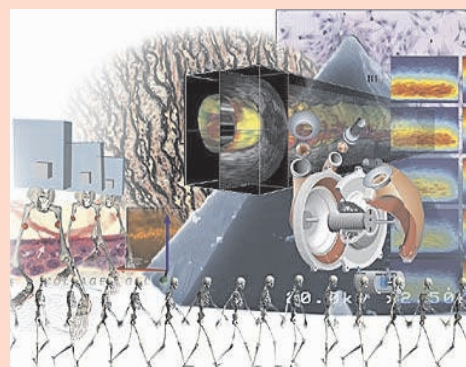


BIOMED NEWS 2021-2022

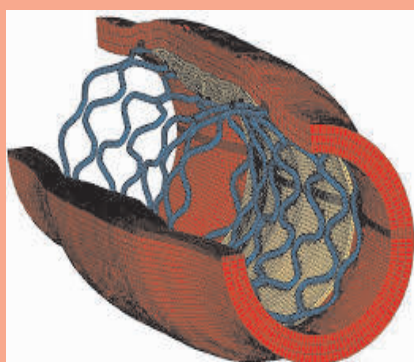


Volume-II
JANUARY TO JUNE-2022



Biomedical Engineering

JIS COLLEGE OF ENGINEERING, KALYANI
(AN AUTONOMOUS INSTITUTE)



EDITORS:
DR. KARABI GANGULY
MS. SWATI SIKDAR
STUDENT COORDINATOR:
MS. UTSAB RAY



DEPARTMENT OF BIOMEDICAL ENGINEERING

Vision:

The Vision of Biomedical Engineering Department is to pioneering excellence in Biomedical engineering education and research in undergraduate and post graduate level, nationally and internationally to provide society with world-class competitive professional in Biomedical Engineering.

Mission:

M1: To impart knowledge and skills necessary for professional development of graduates in Biomedical Engineering.

M2: To provide continuous up gradation of technical education in the field of medical sciences with strong academic progression.

M3: To propagate creativity, responsibility, commitment and leadership qualities and exhibit professional ethics and values in the mind of Biomedical Engineering graduates.

Programme Educational Objectives (PEOs):

PEO1: To prepare students for diverse career in engineering and science including human body systems that build career and pursue higher studies in Biomedical Engineering.

PEO2: To identify, analyze and solve the problems by applying principles of Biomedical engineering with novelty and updated knowledge in the development of product/process/technique related to healthcare to meet the societal demands.

PEO3: To develop skills necessary for communications in their professions and to impart value added continuing education for sustained growth beneficial for society.

PEO4: To apply the acquired practical knowledge for effective teaching, research, development and entrepreneurship in biomedical field.

PEO5: To provide opportunity for students to work as part of teams on multidisciplinary projects with the multifaceted aspects of using modern tools.

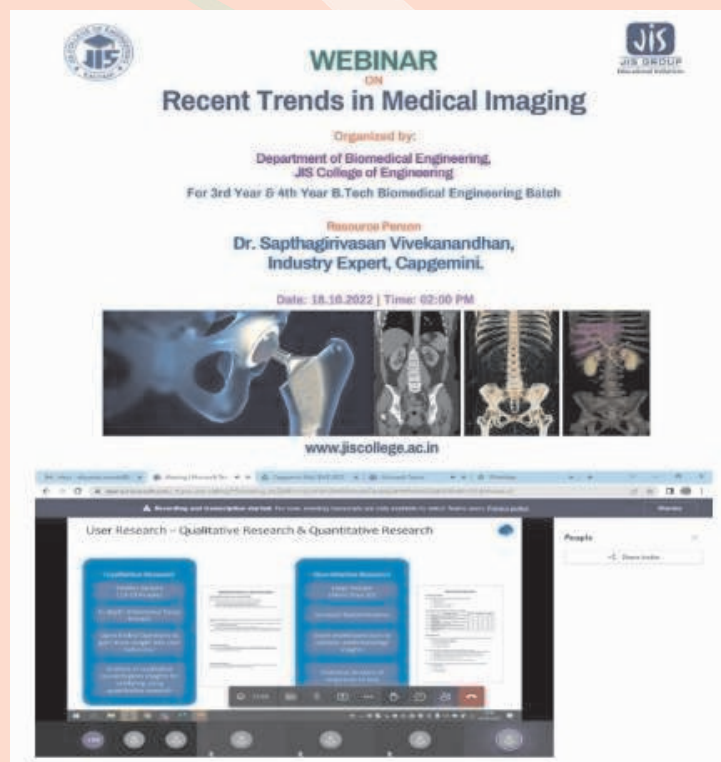
Program Specific Outcomes (PSOs):

PSO1: Identify, analyze and solve the real life problems by applying principles of Biomedical engineering with novelty.

PSO2: Design, develop and specify the mathematical model to understand the inter-relation among various Physiological systems.

PSO3: Investigate, implement and demonstrate various applications of the engineering and physiological subsystems in designing and developing human body systems.

ONE-DAYINDUSTRYCONNECTWEBINARON RECENTTRENDSINMEDICALIMAGING



ONE-DAYINDUSTRYCONNECTWEBINARONLUNG ULTRASOUND

Sl. No.	Name of Visitor / Guest Speaker	Designation/ Occupation	Seminar/ Workshop/ Conference Topic	Total Participant	Date
1	Monalisa Mazumder Gupta	Manager- Ultrasound Siemens HEalthineer	Industry Connect Webinar on Lung Ultrasound during Covid 19	15	31.01.2022

B.TECH BME STUDENTS IN INNOVATION EXHIBITION [organized by Institution of Engineers(India)- Student Chapter]

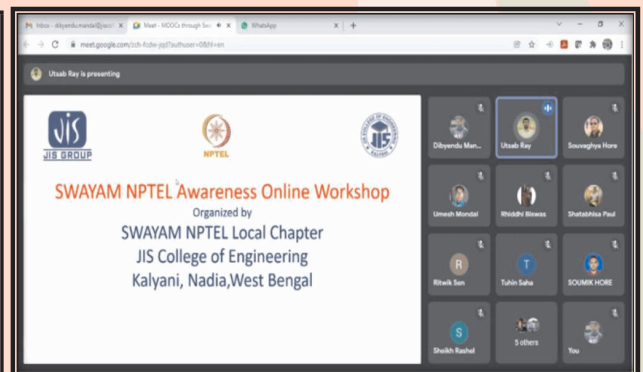


BME Students presenting the project works to Dr. S.M. Ali - Director General, Solar Energy Society of India and Dr. P S Ghosh -MIT, Boston and winning the respective award (1st Prize) in the category of "Best innovative project" out of best selected institutional projects.

BMEEXTRA-ACADEMICACTIVITIES



DRAWINGCOMPETITION

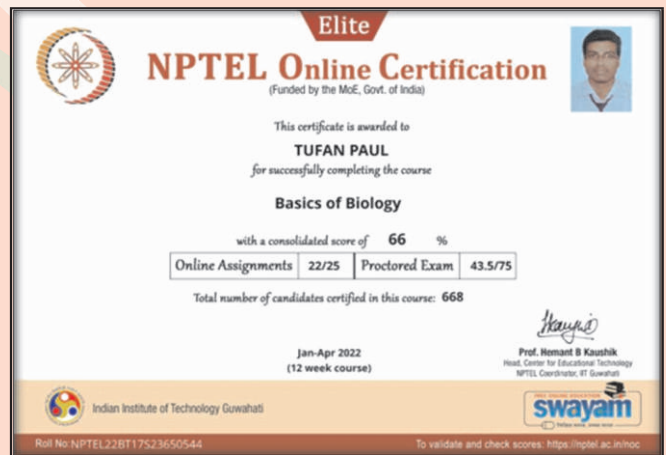
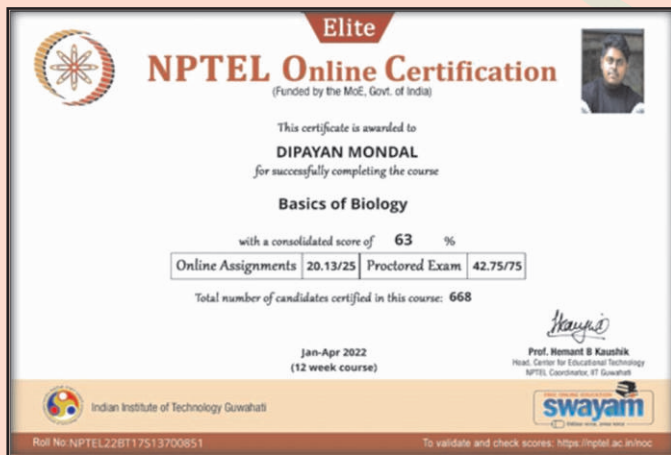


SWAYAMNPTEL AWARENESS WORKSHOP



PROJECTPRESENTATIONATIICREGIONALCONCLAVE

Outstanding Achievement in NPTEL



Outstanding Achievement in SPORTS (Avishek Gupta, BME Graduate Batch 2021-won Gold Medal in Kickboxing Nationals)



JIS SAMMAN 2022 received by BME Faculty Members & Staff Member

CATEGORY	AWARDEE
FACULTY WITH HIGHEST NUMBER OF PUBLICATION -ONLY INDEXED JOURNAL	DR. KARABI GANGULY
FACULTY WITH HIGHEST NO. OF STUDENTS PUBLICATION	DR. SANDIP BAG
BEST VIDEO LECTURES	SWATI SIKDAR
BEST PRACTICAL DEMONSTRATION VIDEO	GOURANGO HALDER



Faculty Achievement:-

- 🕒 **Dr. Dibyendu Mandal** – Successfully completed AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Advanced Sensor technology for Efficient Biomedical & Energy Management in Smart Cities" organized by AICTE ATAL ACADEMY (JECRC-JAIPUR) during 03.01.2022-07.01.2022
- 🕒 **Dr. Karabi Ganguly, Swati Sikdar**– Successfully completed AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Advanced Manufacturing of Biomedical Devices for Precision Health Technologies" organized by AICTE ATAL ACADEMY (IIT-TIRUPATI) during 24.01.2022-28.01.2022
- 🕒 **Dr. Sandip Bag**-Successfully conducted PDP program on CO-PO Attainment organized by JIS Group during 24.01.2022-31.01.2022
- 🕒 **Dr. Karabi Ganguly, Dr. Sandip Bag, Swati Sikdar, Dr. Dibyendu Mandal, Ms. Sumana Banerjee**- Successfully completed AICTE Sponsored ATAL FDP on Biomedical Instruments, Innovation Instrument And Designs Organized By AICTE ATAL ACADEMY (SGSITS-INDORE) during 31.01.2022-04.02.2022
- 🕒 **Dr. Sandip Bag** was selected as Reviewer in The Journal of Biomedical Materials Research PartB: Applied Biomaterials certified by Wiley during February 2022
- 🕒 **Dr. Karabi Ganguly**- Invited Speaker in UGC-HRDC Sponsored Refresher Course in Biomedical at NEHU-Shillong during 16.02.2022-01.03.2022
- 🕒 **Swati Sikdar**- Invited Speaker in Twodays' workshop on Advancement in Biomedical Nanotechnology sponsored by BMESI during 24.02.2022 & 25.02.2022
- 🕒 **Swati Sikdar**- Invited Speaker in International Stop Bullying Campaign organized by VRM-Nigeria held on 12.03.2022
- 🕒 **Swati Sikdar**- Presented paper in the 1st International Cancer Congress organized by ACT, Adamas University and Netaji Subhas Chandra Bose Cancer Hospital held on 06.03.2022-07.03.2022
- 🕒 **Dr. Karabi Ganguly, Dr. Sandip Bag, Swati Sikdar**- Received JIS Innovation Award for Article/Journal/Book Chapter Publication, Patent & Publication with Students held during May 2022
- 🕒 **Dr. Dibyendu Mandal**- Successfully completed ATAL FDP on SMART MANUFACTURING under AICTE Idea Lab organized by AICTE-ATAL Academy & DY Patil International University during 9.06.2022-15.06.2022
- 🕒 **Dr. Dibyendu Mandal** - Received the Award for BEST Project in ATAL FDP under AICTE Idea LAB organized by AICTE-ATAL Academy & DY Patil International University on 16.06.2022
- 🕒 **Dr. Karabi Ganguly**- Delivered Invited Talk on Biomedical Engineering & Career Prospects on National Television -DD Bangla on 17.06.2022
- 🕒 **Dr. Karabi Ganguly, Swati Sikdar** – Completed Capgemini Online Faculty Training on "Requirement Engineering" conducted by Capgemini during 23.6.2022-24.06.2022



ATALFDP COMPLETION CERTIFICATION BY BME FACULTY MEMBERS



DR. SANDIP BAG (PROF-BME) AS REVIEWER IN THE JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B: APPLIED BIOMATERIALS



DR. KARABI GANGULY (HOD-BME) AS INVITED SPEAKER IN UGC-HRDC SPONSORED REFRESHER COURSE IN BIOMEDICAL AT NEHU-SHILLONG



SWATI SIKDAR (AP-BME) AS INVITED SPEAKER TWO DAYS WORKSHOP ON ADVANCEMENT IN BIOMEDICAL NANOTECHNOLOGY SPONSORED BY BMESI



SWATI SIKDAR (AP-BME) AS INVITED SPEAKER IN INTERNATIONAL STOP BULLYING CAMPAIGN ORGANIZED BY VRM-NIGERIA



SWATISIKDAR (AP-BME) PRESENTING PAPER IN 1ST INTERNATIONAL

DR. KARABI GANGULY (HOD-BME), DR. SANDIP BAG (PROF-BME), SWATI SIKDAR (AP-BME) RECEIVED JIS INNOVATION AWARD FOR ARTICLE/ JOURNAL/ BOOK CHAPTER PUBLICATION, PATENT & PUBLICATION WITH STUDENTS

Student Achievement

Sl.	Student Name	Year	Achievement	Venue/Organizer/ Certifying Body	Date
1	Avinash Chatterjee	BME 2 nd Year	SECOND RANK the "INTERNATIONAL APTITUD ECOMPETITION" with Participants from various colleges of 12 different countries.	TEAM 2020 HELPERS (Non-Profit org-India)	January2022
2	Utsab Ray	BME3 rd Year	Awarded for the contribution in NCC	NCC	January2022
3	Avinash Chatterjee	BME2 nd Year	Successfully completed course on Front End Development-HTML	Great Learning	January2022
4	Utsab Ray	BME3 rd Year	Internshala Talks Icon (8th time ISP.... ISP 27program)	Internshala	January2022
5	Utsab Ray	BME3 rd Year	Outstanding contribution in Graduate Rotational Internship Program	The Sparkle Foundation	January2022
6	Swagata Roy	BME3 rd Year	Selected for Internship through Internshala	Youth Empowerment Foundation	January2022
7	Tufan Paul	BME3 rd Year	Selected for Internship through Internshala	Youth Empowerment Foundation	January2022
8	Utsab Ray	BME3 rd Year	Selected as Intern for Mobile App Development in The Sparks Foundation	The Spark Foundation	24.02.2022
9	Utsab Ray	BME3 rd Year	Second in Relay Race for JIS Samman 2022	JIS Group	25.02.2022
10	Utsab Ray	BME3 rd Year	Internshala Talks Icon....ISP28program	Internshala	26.02.2022
11	Asmita Chakraborty	BME3 rd Year	First Position in Solo Dance Competition, JISSPRIT 2022	JIS Group	April2022
12	Debosmita Mondal	BME3 rd Year	First Position in Solo Dance Competition, JISSPRIT 2022	JIS Group	April2022
13	Asmita Chakraborty, Arijit Kumar, Anwesha Chowdhury	BME3 rd Year	Third Position in Solo Dance Competition, JISSPRIT 2022	JIS Group	April2022
14	Sneha Das, Utsab Ray	BME1 st Year BME3 rd Year	Third Position in Drama Competition, JISSPRIT 2022	JIS Group	April2022
15	Avinash Chatterjee	BME2 nd year	Second Position in Painting Competition	BME Dept. in association with IIC, JISCE	April2022
16	Souradip Banerjee	BME2021 Graduate batch	Selected for Higher Studies (M.E in Biomedical Engineering from JU-Kolkata)	JU	2021-2022 Academic session

Department of Biomedical Engineering, JISCE

17	Anindita Guha	BME2020 Graduate batch	Selected for Higher Studies (MBA Hospital and Health Management)	The IIHMR University, Jaipur	2021-2022 Academic session
18	Asmita Chakraborty	BME3rdYear	Received JIS SAMMAN for First Position in SoloDance Competition, JISSPRIT2022	JIS Group	May2022
19	Debosmita Mondal	BME3rdYear	Received JISSAMMAN for First Position in Recitation Competition, JISSPRIT2022	JIS Group	May2022
20	Asmita Chakraborty, Arijit Kumar, Anwesha Chowdhury	BME3rdYear	Received JIS SAMMAN for Third Position in Fashion Show Competition, JISSPRIT2022	JIS Group	May2022
21	Sneha Das, Utsab Ray	BME1stYearBME3rdYear	Received JIS SAMMAN for Third Position in Drama Competition, JISSPRIT 2022	JIS Group	May2022
22	Swarnendu Maiti, Sourav Saha, Tufan Paul, Utsa bRay	BME4thYear BME3rdYear	Received JIS SAMMAN for Best Project	JIS Group	May2022
23	Dipayan Mondal	BME4thYear	NPTEL ELITE certificate in the course Basics of Biology	NPTEL(IIT Guwahati)	Jan-Apr2022
24	Tufan Paul	BME3rdYear	NPTEL ELITE certificate in the course Basics of Biology	NPTEL(IIT Guwahati)	Jan-Apr2022
25	Aksh Prasad Gupta	2019graduate batch	Received JIS INNOVATION AWARD for Research and Innovation for the Academic year of 2019-2020&2020-2021	JISCE & JIS GROUP	17 th May 2022
26	Debalina Bhaumik	2020graduate batch			
27	Swarnendu Maiti	2022graduate batch			
28	Utsab Ray	2023graduate batch			
29	Soumya Das	2023graduate batch			
30	Dwaipayan Roy	2024graduate batch			
31	Souradip Banerjee	2021graduate batch			
32	Swagata Banerjee	2021graduate batch			
33	Deepon Ganguly	2021graduate batch			
34	Bidit Kumar Bandyopadhyay	2021graduate batch			
35	Babita Bera	2021graduate batch			
36	Parboni Bain	2021graduate batch			
37	Ipshita Dey	2021graduate batch			
38	Aindrila Chatterjee	2021graduate batch			
39	Anindita Mukherjee	2021graduate batch			



B.TECH BME Students achievement in wide spectrum activities beyond curriculum



B.TECH BME STUDENT SELECTED IN GOOGLE CLOUD READY FACILITATOR TEAM



B.TECH BME STUDENT SELECTED IN GRAND FINALE OF SMART INDIA HACKATHON



1st position in Recitation



1st position in Dance



3rd position in Drama



3rd position in Fashion Show



Award for Best Project

B.TECH BME Students received JIS Samman 2022
in various categories

Department of Biomedical Engineering, JISCE



Aindrila Chatterjee
BME 2021 Graduate
Batch



Deepoon Ganguly
BME 2021 Graduate
Batch



Souradip Banerjee
BME 2021 Graduate
Batch



Akash Prasad Gupta
BME 2019 Graduate
Batch



Swagata Banerjee
BME 2021 Graduate
Batch



Utsab Ray
BME 2023 Graduate
Batch



Soumya Das
BME 2023 Graduate
Batch



Parboni Bain
BME 2021 Graduate
Batch



Ipshita Dey
BME 2021 Graduate
Batch



Babita Bera
BME 2021 Graduate
Batch



Dwaipayan Roy
BME 2024 Graduate
Batch



Debalina Bhaumik
BME 2020 Graduate
Batch



Anindita Mukherjee
BME 2021 Graduate
Batch



Bidit Bandya
BME 2021 Graduate
Batch

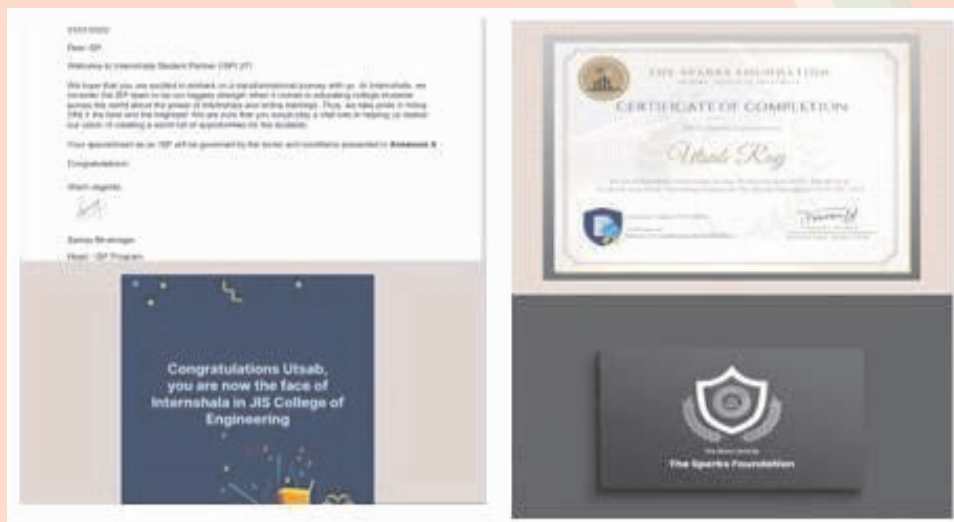


Swarnendu Maiti
BME 2022 Graduate
Batch

JIS INNOVATION AWARD 2022



B.TECH BME Students achievement in NPTEL



B.TECH BME Students achievement as Internshala Student Partner



B.TECH BME Students achievement in various extra-curricular activities

Faculty involvement in Conference/ Seminar/ Workshop organized at JISCE, Kalyani

- **Dr. Sandip Bag** - Successfully conducted PDP program on CO-PO Attainment organized by JIS Group during 24.01.2022-31.01.2022d
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Swati Sikdar**-Received JIS Innovation Award for Article/Journal/Book Chapter Publication, Patent & Publication with Students held during May2022
- **Dr.Karabi Ganguly, Swati Sikdar** – completed Capgemini Online Faculty Training on"Requirement Engineering" conducted by Capgemini (as a part of MoU execution activity between JIS Group & Capgemini) during 23.6.2022-24.06.2022
- **Dr. D. Mondal** –Completed AICTE ATAL FDP on “Advanced sensor Technology for Efficient biomedical and Energy Management in Smart cities” from 03.1.22 to 7.1.22.
- **Dr. D.Mondal**–Completed AICTE ATAL FDP on “Smart Manufacturing” from 09.6.22 to 15.6.22.

Publications by Faculty Members:

Book Chapters:

- **S Bag:** Encyclopedia of Materials: Plastics and Polymers. Chapter Title: Nano indentation of Polymeric Stent) Volume2, 2022, Pages 676-687, ISBN:9780128203521 <https://doi.org/10.1016/B978-0-12-820352-1.00228-5>
- **S. Sikdar:**The Role of 3 D Printing for the Growth and Progress of Medical Healthcare Technology. Chapter Title: 3D Printing in Healthcare: A Pragmatic Approach Transforming the Field of Medical Science (Cambridge Scholar) 2022 (Pages 114-133) ISBN (10): 1-5275-8236-1ISBN (13):978-1-5275-8236-1

- **S Bag, K Ganguly:** A Guide to Hospital Administration and Planning. Chapter Title: Mitigation of Fire Hazards in Hospital (2022). (Pages 193-229) ISBN:978-981-19-6692-7 https://link.springer.com/chapter/10.1007/978-981-19-6692-7_12
- **S Bag, D Mandal:** Next Generation Smart Nano-Bio-Devices. Chapter Title: Overview of Biosensors and its application in Healthcare(2022) (Pages29-60) ISBN:978-981-19-7107-5 https://link.springer.com/chapter/10.1007/978-981-19-7107-5_3
- **S Bag, S Sikdar:** System Design for Epidemics Using Machine Learning and Deep Learning. Chapter Title: Effective Health Screening and Prompt Vaccination to Prevent the Spread of Covid-19 and Minimize its Adverse Effects (In Press)

Journal/Conference Papers:

- **Karabi Ganguly, Swati Sikdar, Dibyendu Mandal, Sandip Bag (2022):** Vitiated Synthesis of Maspin in Breast Cancer by Insulin Engendered Diminution of Progesterone Receptor Number in Neutrophils. *Presented in the 1st International Cancer Congress 2022*
- **Karabi Ganguly, A Palit, M Mukherjee (2022):** Journal Article- Comparative Study and Analysis of Si/SiC and GaN/AlGaN Based Pin Diode Photo Sensors. *International Journal of Advanced Research in Science, Communication and Technology (IJARSCT). ISSN (Online) 2581-9429*