Approved by AICTE, Accredited by NBA (BME, CSE, ECE & EE) and NAAC (B+), Ranked by NIRF (2020) & ARIIA (2020, 2021) and Affiliated to Maulana Abul Kalam Azad University of Technology (Formerly known as West Bengal University of Technology)

3.2.2 Workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and Entrepreneurship

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# Netaji Subhash Engineering College

Institution's Innovation Council (IIC)

**Annual Report** 

2022-2023

**All Events** 

# Quarter-I Events

# NETAJI SUBHASH ENGINEERING COLLEGE TECHNO CITY, NEW GARIA, KOLKATA

# IIC 5.0 SELF- DRIVEN ACTIVITIES FOR QUARTER 1, 2022-23

EVENT NAME - BRAIN FREEZE [INTRA COLLEGE QUIZ]

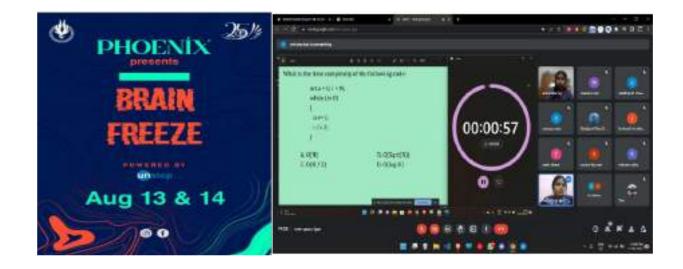
Dates: 13.08.2022 & 14.08.2022

Wing Responsible: Core

Event Details: Intra College Quiz

Participation Details: 97 Participants

Additional Details: The core team of Phoenix hosted an inter-college multidisciplinary quiz competition on the 13th and 15th of August, 2022 in association with unstop.com (formerly dare2compete).



# IIC 5.0 SELF- DRIVEN ACTIVITIES FOR QUARTER 1, 2022-23

Dates : 21.09.2022 to 23. 09.2022 Wing Responsible : Cybernix

Event Details : Technical Session With Project Participation Details : 150 Live Viewers

Additional Details : Cybernix, the technical wing of Phoenix, hosted a technical and educational session to teach the fundamentals and advanced concepts of React JS on 21st September 2022

through 23rd September 2022.





# IIC 5.0 SELF- DRIVEN ACTIVITIES FOR QUARTER 1, 2022-23

Dates: 26.09.2022 Wing Responsible: Core

Event Details: Educational Webinar On Health And Fitness

Participation Details: 54 Participants

Additional Information : The core team of Phoenix organised a one off webinar with founding member of Phoenix and founder of Hustle and Health, Mr. Ritesh Singh on the 26th of

September, 2022.



# IIC 5.0 SELF- DRIVEN ACTIVITIES FOR QUARTER 1, 2022-23

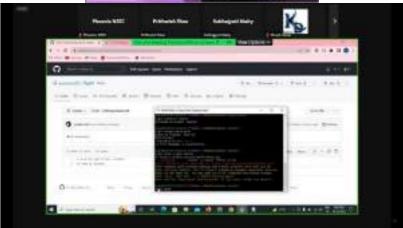
EVENT 4 - GIT & GITHUB [TECHNICAL SESSION]

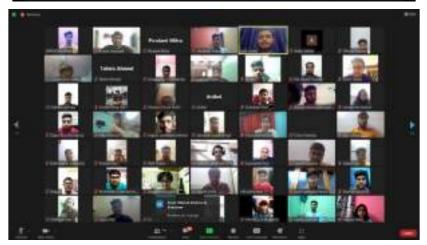
Dates: 20.10.2022 & 21.10.2022 Wing Responsible: Cybernix Event Details: Technical Session Participation Details: 287 Live Viewers

Additional Information : Cybernix, the technical wing of Phoenix, organised a two day session aimed towards beginners to teach them the fundamentals of VCS with Git and GitHub on

20th October and 21st October, 2022.







IIC 5.0 SELF- DRIVEN ACTIVITIES FOR QUARTER 1, 2022-23

**Event Name:**OTP\_ [TECHNICAL WRITING]

Date: 25.10.2022 &31.10.2022

Venue:NSEC

**Event Description:**Events organized by Phoenix the official Tech Club of NSEC:

Phoenix, organized a running event spanning 2 weeks aimed towards gathering the best technical articles from our students. The event lasted from 25th of October through and

up to the 5th November, 2022. Around 72 participants submitted.

# **Event Pictures:**



# Facebook Link:

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# Title of The Programme: Motivational Session by Successful Innovator

By DaminiGhosh Winner of National Innovation Contest

# **Programme Coordinators:**

Mr.Shilpi Bose, Jt. Coordinator, NSEC-EDC Mr.DhritimanMondal, Jt. Coordinator, NSEC-EDC Dr.Tridibesh Nag, Member, NSEC-EDC Date of the Programme: 1<sup>st</sup> November, 2022

# **Conducted By:**

NSEC Entrepreneurship Development Cell (EDC) and Institution's Innovation Council IIC, NetajiSubhash Engineering College.

# **Program Details**

First online discussion session and workshop to know how to prepare a presentation, create a business model and prepare a pitch. It was conducted by the Institution's Innovation Council. The workshop organised by Entrepreneurship Development Cell of NSEC in association with Institution's Innovation Council was an online session held by DaminiGhosh with her team members. They were informed about what entrepreneurship is, what are the benefits of being an entrepreneur, about the need of entrepreneurship in the modern world and so on. It helped the students of first year to get an idea about what entrepreneurship is about and how to participate in the Cine B plan event. It was the first session on Entrepreneurship and Innovation where students were given an insight on innovations and its various problem statements and categories.

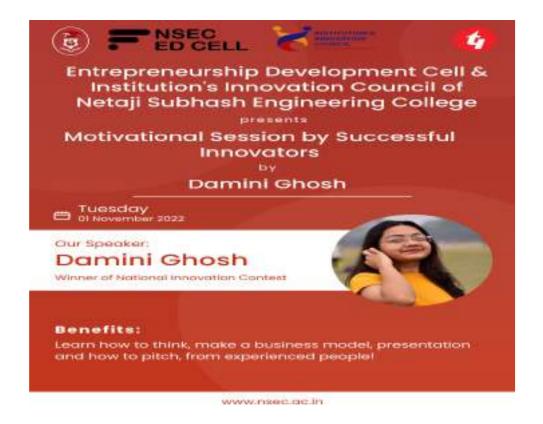
# 1. Participants

a. Students: 90

b. Faculty members: 0

#### 2. Facebook Link:

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# Event Name: CYBER D-DAY HACKATHON 2022

**Date:** 12<sup>th</sup> November, 2022

Venue:

**Event Description:** Department of B.Sc. Cyber Security along with Institute Innovation Cell (IIC),

NSEC organized a Cyber D-Day Hackathon on November 12, 2022.

# **Event Pictures:**





# **Facebook Link:**

 $\frac{https://m.facebook.com/story.php?story\_fbid=pfbid02G3kiwmH1qgse5QcpBs9zA25Vzz}{CZfEcBv7miudxUddjnU6WVctVYX38cCW5gU6jRl&id=100063884146332\&mibextid=}{Nif5oz}$ 

**Event Name:** Financial awareness Campaign : A motivational Speech by an Entrepreneur

**Date:** 23.11.2022

Venue: R. N Tagore Hall, NSEC

**Event Description:** Industry Partner of B.Sc. in Data Science along with Institute Innovation Cell (IIC), NSEC organized a Financial Awareness Campaign specially for BBA and MBA students on 23rd Nov 2022 at R.N.Tagore Hall 2:30 noon. Personnel from Bombay Stock Exchange came to deliver the motivational speech.

# **Event Pictures:**





### Facebook Link:

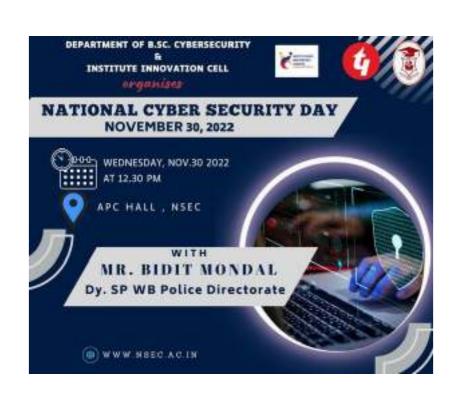
Event Name: National Cyber Security Day, 2022

Date: 30th November, 2022

Venue:

**Event Description:** Department of B.Sc. Cyber Security along with Institute Innovation Cell (IIC),

NSEC organized a National Cyber Security Day on November 30, 2022.



# IIC 5.0 CALENDAR ACTIVITIES FOR QUARTER 2, 2022-23

Field / Exposure Visit To Pre-Incubation Units Such As Ideas Lab, Fab Lab, Makerspace, Design Centres, City MSME Clusters, Workshops, Etc.

**Event Name:** BNCCI Expo Visit And B Plan Competition

Date: 28.12.2022 & 29.12.2022

Venue: BNCCI Expo Centre, Salt Lake, Kolkata

**Event Description:** Chosen student entrepreneurs and enthusiasts with active prototypes and business plans visited the BNCCI Expo Centre in Salt Lake along with faculty guides to participate and came out winning 2 of the 3 categories.

**Event Pictures:** 



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Organize an expert talk on the process of innovation, development, technology readiness level (TRL), commercialization of lab technologies and tech-transfer.

Event Name: Panel Discussion - "Sustainable Development And Green Initiative in

Entrepreneurship" **Date:** 10.01.2023 **Venue:** APC Hall

**Event Description:** An expert panel consisting of industry veterans and scholars including Mr. DigbijoyChakrabarty (CEO / MD, Sun Ecotech), Mr. NirupamChaudhuri, Director, NASSCOM, SantanuDutta Gupta (Asst. Director, GBCI), Swami Vedajnananda (PhD (Engg.), FIE, FICS, FIPHE) & James Biswas (National Sales Manager, ECycle) was organized where they covered the process of innovation, development, TRL in various sectors, and more.

# **Event Pictures:**



# **Facebook**

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Mentoring Event: Demo Day / Exhibition / Poster Presentation Of Innovations / Prototypes & Linkage With Innovation Ambassadors / Experts For Mentorship

Support

**Event Name:** Closed Door E-Summit Business Plan Contest

**Date:** 11.01.2023

Venue: Language Lab 1 and Language Lab 2

Event Description: Select top teams from NSEC and other colleges such as UEM, RCC, and various people from MSMEs' incubated through NSEC incubation center battled it out to get a chance at getting incubated and cash prizes from various industry veterans, funders and more at this closed door e-summit business plan contest.

# **Event Pictures:**



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ERmq\_BXwZLetr79LVJE4NUoujNtUWHQ0O7pJXeVGtzI5Ynkzi3b&\_tn\_=-UC%2CP-R

Workshop on 'Design thinking, critical thinking and innovative design'.

Event Name: Google Codeless Workshop + Innovative Design Panel

**Date:** 11.01.2023 Venue: APC Hall

**Event Description:** Various entrepreneurs along with active members of the Google community came up to Netaji Subhash Engineering College to host a panel on innovative design thinking and organized a codeless workshop, which catered to everyone without relying on coding to demonstrate design, critical thinking, planning, development roadmaps, and more.



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# Workshop on entrepreneurship skill, attitude and behavior development

**Event Name:** Inter-College Student Entrepreneur Panel And Workshop On

Business Ideas, Skills Required, Marketing and Startups.

Date: 11.01.2023 Venue: APC Hall

**Event Description:** Several student entrepreneurs were invited from various colleges across Kolkata to represent their businesses or startups on behalf of their colleges and they sat with in house student leaders and entrepreneurs where various ideas pertaining to entrepreneurship, attitude and behavior development and actual experience required along with skills and marketing was

discussed and taught to other students.

# **Event Pictures:**



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<u>Agn6Tsfi7qE9MdV6t\_ea07FwE9WlfbUEMiz\_wjosxa9xhElqRljA8WZP6P-S3khE3uVILQDX3HPgsZClV0ghC8CnATig-</u>

<u>JUymenFejMRpl7AsrZfNQhDEWk2KwH6c4Yc68FQoZCd I Q9BcHtK6Vrv530dQ8c NbPnecHpNFXegxUpDQXpbXg& tn =-UC%2CP-R</u>

# Organize an inter / Intra institutional innovation competition and reward best innovations

Event Name: Hult Prize, On Campus, 2023

**Date:** 12.01.2023

Venue: Language Lab 1 and Language Lab 2

**Event Description:** Over 30 teams battled it out to compete for cash rewards and a chance to go abroad in this year's on campus Hult Prize contest. This event was hosted in APC hall with expert judges and panelists throughout the 12th of January and the top three teams were rewarded with cash prizes, incubation opportunities and more.

# **Event Pictures:**



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12th January - National Youth Day: Celebrated With Hult Prize

Date: 12.01.2023 Venue: APC Hall

**Event Description:** NSEC celebrated the birth day of Swami Vivekananda, which also coincides with National Youth Day with an opening panel celebrating Swamiji, and hosting the Hult Prize as a special celebration of National Youth Day. A special talk was given by the Principal, NSEC to explain relationship between swamiji and entrepreneurship.



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ghuJqVbz2LYhxIXE9W5pyEZdJRmZCRonZkUefSSwKJEZeYR7VoKqeMF\_REPaGu1J W3acd633O5Lr5geSXJxbWt6zO1VdmUp9zQ&\_tn =-UC%2CP-R

# Conduct A Session On Achieving Problem-Solution Fit And Product Market Fit

**Event Name:** E Summit Expert Panel On Getting Products To The Market And Making A Deliverable Product That Caters To Target Demographics In A

Sustainable And Holistic Manner

**Date:** 12.01.2023

Venue: Language Lab 1, NSEC

**Event Description:** The esteemed investors and judges for the in-house, inter college closed room pitching competition delivered a very interesting talk on getting products to the market to all would-be student entrepreneurs and business enthusiasts along with students who've already gotten small or larger ventures of their own.

# **Event Pictures:**



# Facebook Link:

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# Quarter-III Events

# <u>Field / Exposure visit to incubation unit, Patent facilitation centre, Technology transfer centre such as Atal Incubation centre, etc.</u>

**Event Name: Joint trip to IIT Roorkee - Winner in National Level Hackathon** 

**Date:** 22.03.2023 to 28.03.2023

Venue: IIT Roorkee

**Event Description:** Students from NSEC produced a record as they managed to secure a first prize in the national level hackathon organized by IIT Roorkee's techno-management fest, "Cognizance".

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# **Celebration of World Intellectual Property Day**

**Event Name:** Lecture on Overview on IPR and its relevance to Business

**Date:** 26<sup>th</sup> April, 2023

Venue: Online

# **Event Description:**

NSEC Institution's Innovation Council organized an online Session on the "Overview on IPR and Its Relevance to Business" at 3:00PM on 26th April, 2023 on the occasion of the World Intellectual Property Day through google meet platform.

Overview on IPR and its relevance to Business

Wednesday, 26 Apr • 3:00 – 4:00 pm

Google Meet joining info

Video call link: <a href="https://meet.google.com/thk-jawb-wdd">https://meet.google.com/thk-jawb-wdd</a>

Or dial: +1 401-684-3427 PIN: 656 549 697#

Note:NSEC members are requested to join with their @nsec.ac.in mail id to avoid additional admission permission.

# Facebook Link:

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58tJrRzjfNPsy366TqX1uOn-Tle\_8mujNPfDiTRcbmY748-

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<u>dteYAypCMwvXtEW9CEodLKo2pXQMXQIYWXVA&\_tn\_</u> =-UC%2CP-R



# Celebration of National Technology Day

Event Name: Two Day Boot Camp on Finance and Go To Market Strategy

Date: 11th & 12th May, 2023

Venue: H204 and Incubation Center

# **Event Description:**

On the occasion of National Technology Day the NSEC-IIC is organized a Two-Days Boot Camp on "Finance and Goto Market Strategy" on 11th &12th May, 2023 in collaboration with the Wadhwani Foundation.

# Facebook Link:

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# **Workshop on Intellectual Property Rights**

Event Name: <u>Session by international scholar, Prof. (Dr.) Clemens Arzt on "VEHICLE</u> AUTOMATION AND DATA PROTECTION - THE GERMAN (AND EUROPEAN) APPROACH"

Date: 17.05.2023

Venue: APC Hall

**Event Description:** Prof. (Dr.) Clemens Artz took the stage in one of the foremost sessions during Avenir'23, the techno management fest of NSEC to inculcate the culture and knowledge of international and national legal challenges and various regulations surrounding the emergence of hyper fast LLP landscape, Al cards, quickly advancing entrepreneurship market sector and much more.

#### Facebook Link:

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# Workshop on how to plan for start up and legal and ethical steps

Event Name: <u>Session by Mr. Trinanjan Chatterjee on current business market trends.</u> <u>Al, the changing landscape and how it affects the business landscape</u>.

**Date:** 18.05.2023 **Venue:** APC Hall

**Event Description:** Mr. Trinanjan Chatterjee, present consultant entrepreneur, former R & D group director, Synopsis, India and Sri Lanka, held a very informative and fascinating session to a massive audience detailing his views on the changing landscape with the rapid advance of the LLP AI models and how it is impacting the Business canvas along with future implications and trend analysis.

# Facebook Link:

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# Mentoring Event: Demo day / Exhibition / Poster presentation of business plans & linkage with innovation ambassadors / experts fir mentorship support - manage through YUKTI-NIR

Event Name: Avenir'23 Tech-Expo, The Premiere Tech Exhibition

Date: 17.05.2023 - 19.05.2023

Venue: Language Lab 1 and Language Lab 2

**Event Description:** Students from both NSEC, Techno India Group Of Colleges and various NITs and other colleges along with school students came up to showcase their projects and innovations throughout the event, with their technical excellence encompassing myriad domains, to inculcate technical growth and foster innovation.

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 $\underline{Euwp5iqQKsEZCNdy5oey0mf2NID6eBtGqwvm2F494bx1HxBfvB5LVEI3A2vG63a4Iv5w}\\ w070tylN53jDmGSb4npm5P2YZw\& tn =-UC\%2CP-R$ 



# Session / Workshop on Business Model Canvas (BMC)

Event Name: Session By NSEC Alumni, Sunnyul Hossen On Startups,

Entrepreneurship - "Startups : From Zero To Hero!"

Date: 18.05.2023 Venue: APC Hall

**Event Description:** Suunyul Hossen, an alumni of NSEC itself, held a session on Business Models, Startups, Entrepreneurship and much more during his session titled, "Startups: From zero to hero" where is taught aspiring students to learn and do better with

entrepreneurship, startups and innovative ideas in general.

## Facebook Link:

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<u>s4gtBR3CM7IbHuUiQrccTy1rpyFs0zbEfQ7bSgdzM&\_\_tn\_\_=-UC%2CP-R</u>



# Workshop on Prototype / Process design and development

Event Name: 3 Day Multidisciplinary Hackathon, "InnovatriX"

Date: 17.05.2023 - 19.05.2023

Venue: APC Hall, Language Lab 1, Language Lab 2

**Event Description:** For the first time in the history, NSEC organized a multi-day, multi-disciplinary hackathon, "InnovatriX", with a massive footfall of over 400+ registered students as a part of Avenir, our annual techno-management fest. Students not only worked on designing proper prototypes for their ideas but were also guided by distinguished alumni entrepreneurs and other industry giants.

#### Facebook Link:

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# Quarter-IV Events

# **Celebrating World Environment Day**

**Event Name:** "RELEAF" A Tree Plantation Drive on the occasion of World Environment Day

**Date:** 05.6.2023

Venue: College Campus

**Faculty Coordinator: Prof. Indranil Ghosh** 

**Event Description:** The Eco Cultural Club of Netaji Subhash Engineering College in association with the Institution's Innovation Council (IIC) organized a Tree Plantation Drive inside the campus on 5<sup>th</sup> June , 2023, on the occasion of World Environment Day where Director, Principal, dean, HODs and other faculty members are present and took part in planting trees.

No. of Student Involved: 17 No. of Faculty Involved: 23

Facebook Link:

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# One Day Workshop

Event Name: One Day Workshop on "National Education Policy (NEP2-2020) & Reforms in

**Technical Education** 

Date: 22.6.2023

Venue: APC Hall

**Faculty Coordinator: Prof. Sukumar Roy** 

**Event Description:** NSEC-IIC organized a session on Accelerators - Opportunities for Students & Faculties - Early Stage Entrepreneurs collaborating with the SwitchOn Foundation, the NGO, pioneer accelerator in the field of sustainable development on 16th August, 2023 at the Seminar Hall of Electrical Engineering with the selected students. The collaboration with the SwitchON Foundation has been extended by signing a MoU towards setting the Greenovation Club to look after Green Innovation only inside the NSEC Campus.

No. of Student Involved: 45

No. of Faculty Involved: 26

### Facebook Link:

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# **Value Proposition and Business Fit**

**Event Name:** One Day Boot camp on Value Proposition and Business Fit for Projects on Ayurvedic Medicine

Date: 31.7.2023

Venue: Language 2 of NSEC

Faculty Coordinator: Dr. Shilpi Bose

**Event Description:** The Institution's Innovation Council (IIC) of Netaji Subhash Engineering College organized the <u>One Day Boot Camp on Value Proposition and Business Fit for Projects on Ayurvedic Medicine</u> on 31<sup>st</sup> July, 2023 from 2:30 PM at the Language Lab of NSEC Campus. The Boot Camp was focused on the 14 selected Ayurvedic projects. Prof Shilpi Bose started the bootcamp and continued by Prof. (Dr.) Subhash Chandra Dutta, Professor and Head of the Department of Shalyatantra, J B Roy State Ayurvedic Medical College and Hospital, Kolkata.

No. of Student Involved: 42

No. of Faculty Involved: 8

#### Facebook Link:

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# **Session on Funding Opportunity**

**Event Name: Session on Funding Opportunity** 

Date: 08.08.2023

Venue: Online Mode

Faculty Coordinator: Prof. Shilpi Bose

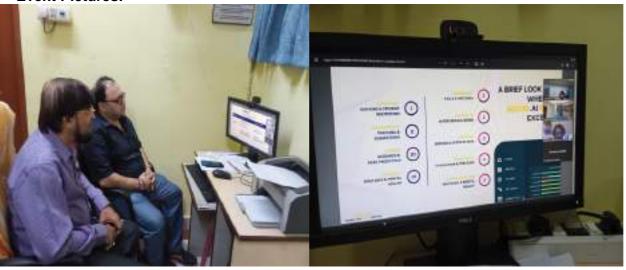
**Event Description:** An online session was organized with Mr. Adam Hocek, CEO and Co-Founder of Aecho.ai on 8th August, 2023 on online Zoom Platform for the funding opportunity for our students who collaborated with Aecho.ai to develop the psychometric software.

No. of Student Involved: 2

No. of Faculty Involved: 4

#### Facebook Link:

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# Celebrating 76th Independence Day

**Event Name:** Celebration of Independence Day

**Date:** 15.8.2023

Venue: College Campus

**Faculty Coordinator: Prof. Indranil Ghosh** 

**Event Description:** The Eco Cultural Club of Netaji Subhash Engineering College in association with the Institution's Innovation Council (IIC) organized a celebration event including Flag Hoisting, Lecture on 76<sup>th</sup> Independence Day and other cultural events at the campus ground on 15<sup>th</sup> August, 2023, on the occasion of 76<sup>th</sup> Independence Day where Director, Principal, dean, HODs and other faculty members are present.

No. of Student Involved: 70 No. of Faculty Involved: 42

Facebook Link:

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RtgGLAy5meWelvU7Gwg8KY2eevis4okiPKqGc3Pn2tt5FAqPSnZfnleLgJzKQEXsgditPK CpHcG-gvLp0U8BX7ntZ0X8aClfzUu\_1Zmkpmk27zyzJxB1e13SVGCzkXyd-Q-Nxa0ptugDZVGAvCECficTqSSgXc6PjOLil4o& tn =-UC%2CP-R





Event Name: Session on Accelerators/Incubation - Opportunities for Students & Faculties -

Early Stage Entrepreneurs

**Date:** 16.8.2023

Venue: Seminar Hall of Electrical Engineering Department

Faculty Coordinator: Prof. Shilpi Bose

**Event Description:** NSEC-IIC organized a session on Accelerators - Opportunities for Students & Faculties - Early Stage Entrepreneurs collaborating with the SwitchOn Foundation, the NGO, pioneer accelerator in the field of sustainable development on 16th August, 2023 at the Seminar Hall of Electrical Engineering with the selected students. The collaboration with the SwitchON Foundation has been extended by signing a MoU towards setting the Greenovation Club to look after Green Innovation only inside the NSEC Campus.

No. of Student Involved: 25 No. of Faculty Involved: 6

Facebook Link:

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## **Celebrating World Entrepreneur's Day**

**Event Name:** Motivational Session by Leading Entrepreneurs for 1<sup>st</sup> Year B.Tech Students

Date: 21.8.2023

**Venue:** O501 and O502 of NSEC Campus **Faculty Coordinator: Prof. Dhritiman Mandal** 

**Event Description:** The Institution's Innovation Council (IIC) of Netaji Subhash Engineering College organized the Motivational Session for the B.Tech 1<sup>st</sup> Year Students by the leading entrepreneurs Dr. Atasi Sarkar and Mr. Soumya Sarkar, Co-Founders of Graduate School of Science on 21<sup>st</sup> August, 2023 at 2:00 PM later they were felicitated at the Language Lab of NSEC. On this occasion a certificate distribution ceremony was also conducted at the Language Lab for the successful students of the Entrepreneurship Course "IGNITE" conducted in association with the Wadhwani Foundation.

No. of Student Involved: 215 No. of Faculty Involved: 6

Facebook Link:

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WGyKropmo\_CUtERunuYmB02YU4gKum46fbMUa1FR5aRjfLz6CnY2YWk3cw&\_tn\_= -UC%2CP-R

#### **Event Pictures:**



# **Session on Lean Start-Up**

**Event Name: Session on Lean Start-Up & Minimum Viable** 

**Product/Business** 

Date: 29.8.2023

Venue: Management Classroom

**Faculty Coordinator: Prof. Dhritiman Mandal** 

**Event Description:** The management department in association with the Institution's Innovation Council organized a Session Lean Start-Up & Minimum Viable Product/Business on 29<sup>th</sup> August, 2023 at 1:30PM onwards, for the students of MBA and BBA and other interested students of NSEC where Mr. Subhabrata Bhattacharya, the Regional Manager of

Wadhwani Foundation was the speaker.

No. of Student Involved: 68 No. of Faculty Involved: 4

Facebook Link:

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<u>wqdSmdV8aR44En7k1mA0ZUiz6VcVt12ce9ThV1nOiVI7Dt9E47tAPhvHYLsLS2SFIx0Oo</u> WcDTijBYkN0b3NnVkXW-Qoq4pv1M&\_tn\_\_=-UC%2CP-R

#### **Event Pictures:**



**Event Name: Internal Evaluation of the MSME Idea Hackathon 3.0 (Women)** 

Date: 29.8.2023

Venue: R. N Tagore Hall

Faculty Coordinator: Prof. Shilpi Bose

Event Description: NSEC-IIC organized the internal evaluation of the MSME Idea

Hackathon 3.0 (Women) on 29th August at R. N Tagore Hall.

No. of Student Involved: 4 Teams External : 5 Teams

Total including student organizers: 42

No. of Faculty Involved: 6

Facebook Link:

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YGMAhB8maLBVEvY8dozVPrPfTWkI&\_\_tn\_\_=-UC%2CP-R

#### **Event Pictures:**



# List of activities performed during Quarter I and Quarter II

- NSEC-IIC organized a Workshop on "Entrepreneurship and Innovation as Career Opportunity" on 3<sup>rd</sup> December, 2020 on online Zoom platform for the 1<sup>st</sup> Year B.Tech students of NSEC, where Mr. Subhabrata Bhattacharya, Regional Manager of Wadhwani Foundation explain about how Entrepreneurship and Innovation can impact in their career path. Around 136 students attended the workshop.
- 2. NSEC-IIC organized a <u>motivational session by our alumni entrepreneur</u> Mr. Argha Acharya, Mr. Sanket Sarkar and Mr. Vishal Kanwar <u>on 29<sup>th</sup> January, 2021 at 8PM</u> on the online Zoom platform where 198 students attended the session. Katha Sur and Karan Ghorai of 4<sup>th</sup> year ECE were the moderator of that session.
- 3. NSEC-IIC organized the <u>motivational session by successful innovators on 18th November, 2020</u> where Katha Sur and Karan Ghorai addressed 1st year students to motivate them about innovation culture at NSEC campus. They shared their experiences as the winner of 3M CII and AICTE Viswakarma award. Around 310 students attended the session on the online Zoom platform.
- 4. NSEC-IIC organized the orientation session on the "National Education Policy Focusing on Innovation & Entrepreneurship" on 2<sup>nd</sup> December,2020 at 6:00 PM on online google meet Platform as well as facebook live where Dr. Buddha Chandrashekhar, the Chief Coordinating Officer, NEAT, AICTE was the speaker. He explained in details the objective of the new education policy. Around 200 students attended the session.
- 5. NSEC-EDC under NSEC-IIC celebrated the <u>National Innovation Day</u> on the Birth anniversary of our former President Dr. A.P.J Abdul Kalam on <u>15<sup>th</sup> October, 2020</u>. On this occasion NSEC-IIC organized an online discussion session where our Alumni Entrepreneur and Innovator Mr. Sanket Sarkar spoke with Mr. Sabyasachi Mukhopadhyay, TedX Speaker, Faculty, MAKAUT and Facebook Lead and Innovator about the significance of the National Innovation Day at our institutional Facebook page live <a href="https://fb.watch/3pk-hlhbps/">https://fb.watch/3pk-hlhbps/</a> at 8PM on 15<sup>th</sup> October, 2020.
- 6. NSEC entrepreneurship Development Cell (NSEC-EDC) under the Institution's Innovation Council organized an <u>orientation session on 27<sup>th</sup> November, 2020</u> at 8PM on online google meet platform where EDC student representatives addressed students in presence of faculty representatives. Students were encouraged to join and participate in various activities of EDC as well as IIC. Around 100 students join the session. Katha Sur, the EDC Campus head, conducted the session.
- 7. NSEC-IIC organized an online Workshop for the IITB-ISRO AICTE organized MAPATHON on 10<sup>th</sup> December, 2020 at 5:00 PM on online google meet platform. The objective of this session was to motivate students to take part in the above said MAPATHON and also to help them about thinking innovative solution for the suggested area of concern for this MAPATHON. Around 30 interested students attended the session. The session was conducted by Shilpi Mukherjee, 3<sup>rd</sup> Year, CSE and two alumni student Mr. Saoujanya Ray and Pranay Dey delivered their motivational speeches.
- 8. NSEC-IIC organized an online Technical Workshop on "Cyber Security and Ethical Hacking" on 11<sup>th</sup> December, 2020 at 4:00 PM in collaboration with ISOEH (Indian School of Ethical Hacking). Students were highly impressed with this workshop to know and learn about Cyber Security and Ethical Hacking along with the job opportunities and above all the startup opportunities. Around 250 students attended the session.

- 9. NSEC-IIC organized a session on "<u>Process of Innovation Development" on 3<sup>rd</sup> December, 2020</u> at 5:00 PM on online Zoom Platform, where Innovation Ambassadors of NSEC Prof. Shilpi Bose, Prof. Dhritiman Mandal and Prof. Tridibesh Nag addressed towards attendees about the process of Innovation Development and also the support available from MoE Innovation Cell and the NSEC College authority. Around 180 students attended the session.
- 10. NSEC-IIC organized an <u>Orientation session on 4<sup>th</sup> December, 2020</u> at 5:00 PM on online Zoom Platform, for the 1<sup>st</sup> year students of NSEC where Innovation Ambassadors of NSEC Prof. Shilpi Bose, Prof. Dhritiman Mandal and Prof. Tridibesh Nag addressed towards attendees about the MoE's Innovation Cell and the Institution's Innovation Council of NSEC and its activities along with the support available from MoE Innovation Cell and the NSEC College authority. Around 168 students attended the session.
- 11. NSEC-IIC has planned to conduct the <u>orientation on National Innovation and Startup policy</u> (NISP) in phases. In first phase the Orientation session were conducted for ECE and CSE students during <u>21<sup>st</sup> and 22<sup>nd</sup> December</u>, 2020 on online google meet platform by the NISP faculty coordinator Prof. Shilpi Bose. On 21<sup>st</sup> there were around 50 students attended the session while on 22<sup>nd</sup> around 70 students attended.
- 12. NSEC-IIC organized an Online Workshop on "Design Thinking, Critical Thinking and Innovation Design" scheduled on 2<sup>nd</sup> January, 2021 at 3:30 PM on online Google meet Platform, where student innovators Katha Sur and Karan Ghorai conducted the session. The workshop started at 5:30 PM due to some technical problem where 38 registered students joined the workshop.
- 13. NSEC-IIC organized the prestigious <u>Hult Prize 2021 On-Campus event of Idea Pitching and POC validation Competition on 16<sup>th</sup> January, 2021</u>. NSEC is organizing this competition since 2018 successfully. This year 24 teams participated in this event. A panel of Nine (9) Judges outside of our Institution coming from different background starting from Young Entrepreneur, Technical expert to Management expert and legal expert contributed a lot to judge the winners in a full day event. Around 100 students participated in this event. The identified ideas will be encouraged to develop the prototype and then we will submit the same to IIC portal.
- 14. NSEC-IIC organized an online session on "Business Model" on 9<sup>th</sup> January, 2021 at 8:30 PM at online google meet platform where Mr. Avelo Roy, MD, Kolkata Ventures, Director, ECC Engineering Pvt. Ltd. addressed our students. Mr. Roy motivate our students about the Business Model by setting examples which encouraged the aspirants young entrepreneurs. Around 50 students attended the session.
- 15. NSEC-IIC organized a <u>Pre-Hult Session on 15<sup>th</sup> January, 2021</u> on online google meet platform to groom the participated teams before their pitching at Hult Prize On-Campus event. The objective of this session was to screening the ideas as well as advised the participants about how to pitch and what to pitch during Hult Competition. This grooming session was conducted one to one basis for each of the participating team. Our alumni entrepreneurs Mr. Sanket Sarkar and Mr. Vishal Kanwar were present their to evaluate, validate and advise the aspirants. All 24 teams were present consisting of around 85 students.
- 16. NSEC Entrepreneurship Development Cell (NSEC-EDC) under the Institution's Innovation Council (IIC) offers a <u>practitioner's course to empower college students with an entrepreneurial mindset and business skills to enhance their job prospects, encourage intrapreneurship, and drive long-term</u>

entrepreneurship in collaboration with the Wadhwani Foundation. The course has been offered to all the 1<sup>st</sup> year students of NSEC. In this connection NSEC-EDC organized the orientation session on 30<sup>th</sup> January, 2021 at 9:00 AM on their online Zoom Platform where Prof. Tirthankar Datta, Principal, NSEC, Prof. Shilpi Bose, Coordinator, NSEC-EDC, Prof. Sabyasachi Bagchi, HOD, BES, Prof. Atanu Das, HOD, MCA, Prof Dhritiman Mandal, HOD, MBA and other faculty representatives were present. Mr. Subhabrata Bhattachary, Reginal Manager, Wadhwani Foundation addressed students to explain the objective of this course. Prof. Bose motivated students to attend the course regularly. Prof. Datta explained the necessity of this course to motivate students. More than 400 students attended the session.

- 17. Participation in <u>5th Project Monitoring & Advisory Committee (PMAC) meeting</u> of the scheme "Support for Entrepreneurial and Managerial Development of MSMEs through Incubators"under CLCS-TUS reg on <u>24<sup>th</sup> December</u>, <u>2020</u> where 3 Projects were selected and demonstrated for <u>funding from MSME</u>, <u>Govt. of India</u>.
- 18. Participation in Toycathon. One team selected in 1<sup>st</sup> round.
- 19. Submission of projects for Innovation Contest 2020. One project goes to final round.
- 20. Submission of projects (7) for AICTE Chatra Viswakarma Award. 5 Projects were shortlisted in 1<sup>st</sup> round. Prototype for 4 projects was submitted by 8<sup>th</sup> March, 2021.
- 21. ARIIA Data Submission is closed to complete and to be submitted by 31<sup>st</sup> March, 2021.







# IEEE EDS Two-Day WEBINAR ON 4G AND 5G SECURITY-OPPORTUNITIES AND CHALLENGES

ED Netaji Subhash Engineering College Student Branch Chapter and the Department of Electronics and Communication Engineering, in association with IEEE EDS Kolkata Chapter, organized a two-day webinar on "4G and 5G Security-Opportunities and Challenges" on 26 and 27 September, 2020 by Dr. Ashutosh Dutta, who is an IEEE fellow, a senior scientist and 5G Chief Strategist at Johns Hopkins University, USA. The online platform chosen for these two sessions, was Google Meet. The session started from 7:00pm on both the days.

Both the sessions had about 60 participants, where besides IEEE EDS members, there were other students from 1<sup>st</sup> to 4<sup>th</sup> year of the department of ECE, Faculty members and the Head of the Department of ECE, NSEC.

The first session of Dr. Dutta on 26<sup>th</sup> September, 2020, was regarding 4G technology, security, advantages and scopes. The session was of one and a half hour and was concluded by our HOD, ECE.

The second session on 27<sup>th</sup> September,2020, was of about 2 hours. In this session, the speaker gave an insight of the 5G technology, the opportunities and challenges related to this. He gave a full overview of the advancements, utilities and probable hazards associated with the 5G world.

At the end of the session, there was an interactive session, where along with the students, our HOD Sir also took part. Finally, he concluded the session.









## **Signal Processing Tools for Condition Monitoring of Biomedical Systems**

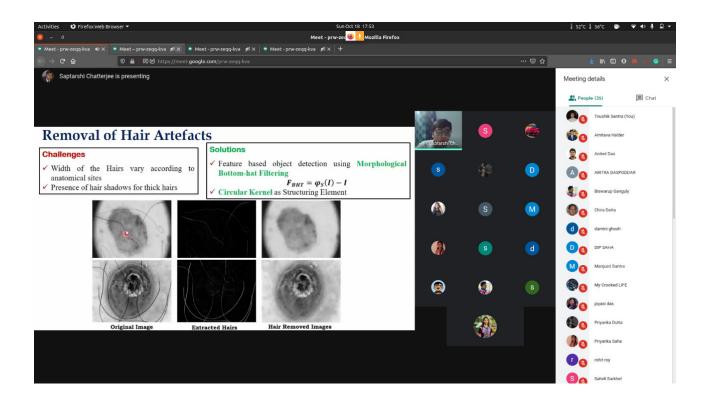
ED Netaji Subhash Engineering College Student Branch Chapter in association with the GnZ Student Cell, Department of Electronics and Communication Engineering organized an IEEE EDS one day webinar on "Signal Processing Tools for Condition Monitoring of Biomedical Systems" on 18 October, 2020 by Mr. Saptarshi Chatterjee, Visvesvaraya PhD fellow, Electrical Engineering Department, Jadavpur University.

The online platform chosen for the event was Google Meet.

The session started from 5:00pm and was for about 1hr 30 mins.

The event had about 35 participants, including IEEE EDS members, B.Tech students from 1<sup>st</sup> to 4<sup>th</sup> year of various departments, and Faculty advisors, as well as, HOD of ECE, NSEC.

One of the student members hosted the event, where our HOD Sir introduced the speaker, Mr. Chatterjee, who started the session with a presentation showing the Development of Computer Aided Diagnosis(CAD) Systems as an emerging research trend in recent years, as well as, the challenges in this field.









# IEEE DISTINGUISHED LECTURE ON Si-BASED RESONANT INTERBAND TUNNEL DIODES FOR QUANTUM FUNCTIONAL AND MULTILEVEL CIRCUITRY TO EXTEND CMOS

ED Netaji Subhash Engineering College Student Branch Chapter in association with the GnZ Student Cell, Department of Electronics and Communication Engineering organized an IEEE EDS Distinguished Lecture (one day webinar) on "Si-Based Resonant Interband Tunnel Diodes for Quantum Functional and Multi-Level Circuitry to Extend CMOS" on 13 February, 2021 by IEEE EDS Distinguished Lecturer, Prof. Paul R. Berger, Director, Organic and Printed Flexible Electronics Laboratory, Department of Electrical and Computer Engineering, The Ohio State University.

The online platform chosen for the event was ZOOM.

The session started from 2:30pm and was for about 1hr 30 mins.

The event had about 80 participants, including IEEE EDS members, B.Tech students from 1<sup>st</sup> to 4<sup>th</sup> year of ECE, and Faculty advisors, as well as, the Principal, NSEC.

One of the student members hosted the event, who introduced our Distinguished Lecturer, Prof. Berger gave a very informative presentation on the latest Si-based tunnel diode designing and explained every single detail for the attendees to get a clear idea on the topic. He gave a simple presentation to make us understand the electronics behind this, and helped us to connect with what we already knew about VLSI and the improvement in this technology. At the end of his presentation, there was an interactive QnA session, where the students, as well as our faculty participated. Finally, the session was concluded.

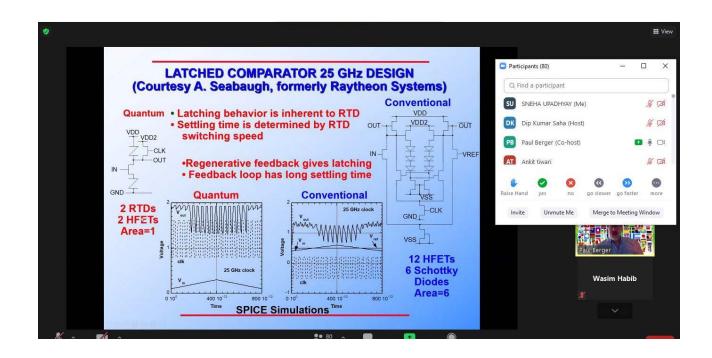
The event was very beneficial for the participants, interested in this particular field of electronic circuit design. Prof. Paul R. Berger cleared all the doubts of the attendees and has enlightened them in a path to pursue further studies in this as well. Thus, it was a successful event, in the presence of all interested participants.







### **EVENT PICTURE**









# ULTRA LOW POWER LOGIC CIRCUIT DESIGN USING ADIABATIC LOGIC

ED Netaji Subhash Engineering College Student Branch Chapter in association with the GnZ Student Cell, Department of Electronics and Communication Engineering organized an IEEE EDS one day webinar on "Ultra Low Power Logic Circuit Design Using Adiabatic Logic" on 13 February, 2021 by Dr. Manash Chanda, Assistant Professor, MSIT,Kolkata, and Vice Chairman,IEEE ED Kolkata Chapter.

The online platform chosen for the event was ZOOM.

The session started from 5:00pm and was for about 1hr 30 mins.

The event had about 50 participants, including IEEE EDS members, B.Tech students from 1<sup>st</sup> to 4<sup>th</sup> year of ECE, and Faculty advisors, as well as, the Principal, NSEC.

One of the student members hosted the event, who introduced our speaker, Dr. Manash Chanda. Dr. Chanda at first gave an overview on what IEEE is, what it does, and then the benefits of joining EDS. Then, he started his presentation on ultra low power logic circuit design and explained the adiabatic logic and its benefits in this circuit design.

At the end of his presentation, there was an interactive QnA session, where the students, as well as our faculty participated. Finally, the session was concluded.

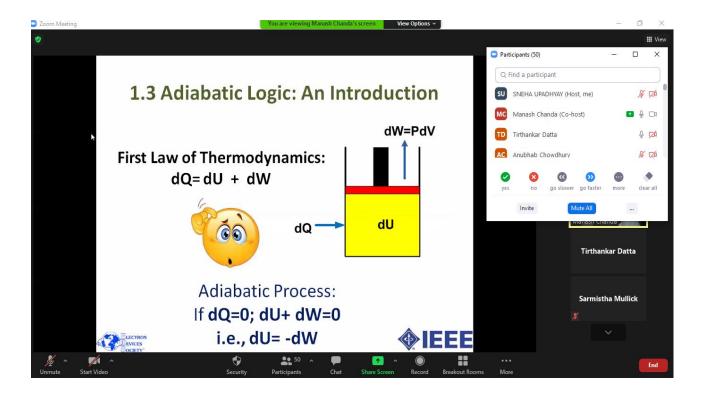
The event was very beneficial for the participants, interested in this particular field of electronic circuit design. Dr. Chanda cleared all the doubts of the attendees and has enlightened them in a path to pursue further studies in this as well. Thus, it was a successful event, in the presence of all interested participants.







# **EVENT PICTURE**









## **Tunnel FETs: Opportunities, Trends and Challenges**

ED Netaji Subhash Engineering College Student Branch Chapter in association with the GnZ Student Cell, Department of Electronics and Communication Engineering, on the occasion of **World Engineering Day on March 4, 2021**, organized an IEEE EDS one day webinar on "**Tunnel FETs: Opportunities, Trends and Challenges**" by Dr. AngsumanSarkar,Professor of the Department of Electronics & Communication Engineering, Kalyani Government Engineering College.

The online platform chosen for the event was ZOOM.

The session started from 3:00pm and was for about 1hr.

The event had about 36 participants, including IEEE EDS members, B.Tech students from 1<sup>st</sup> to 4<sup>th</sup> year of ECE, and Faculty advisors, as well as, the HOD of ECE,NSEC.

Our HOD Sir started the session, talking about World Engineering Day and how we have planned to celebrate this day through this event and then, one of the student members hosted the event, who introduced our speaker, Dr. Angsuman Sarkar. After this introduction, Dr. Sarkar started his presentation and explained in detail about TFETS, FINFETS and Double Gate FETS. He introduced the frontiers of TFET explorations, recent trends in TFET design and provided the listeners with a perspective on how to realize TFET applications in the future. At the end of his presentation, there was an interactive QnA session, where the students, as well as our faculty participated. Finally, the session was concluded.

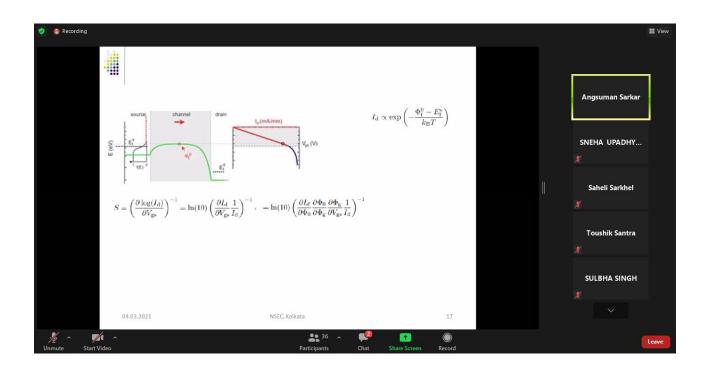
The event was very beneficial for the participants, interested in this particular field of mosfets. Dr. Sarkar cleared all the doubts of the attendees and has enlightened them in a path to pursue further studies in this as well. Thus, it was a successful event, in the presence of all interested participants.







# **EVENT PICTURE**









# EMERGING TRENDS IN DEVICE ENGINEERING FOR IMPROVED PERFORMANCES

ED Netaji Subhash Engineering College Student Branch Chapter in association with the GnZ Student Cell, Department of Electronics and Communication Engineering,on the occasion of World Engineering Day on March 4, 2021, organized an IEEE EDS one day webinar on "Emerging Trends in Device Engineering for Improved Performances" by Dr. NavjeetBagga, Assistant Professor, PDPM IIITDM Jabalpur, India.

The online platform chosen for the event was ZOOM. The session started from 4:00pm and was for about 1hr.

The event had about 35 participants, including IEEE EDS members, B.Tech students from 1<sup>st</sup> to 4<sup>th</sup> year of ECE, and Faculty advisors, as well as, the HOD of ECE, NSEC.

One of the student members hosted the event, who introduced our speaker, Dr. Bagga. Then, he started his session with a brief introduction of emerging devices such as Tunnel FETs and Negative Capacitance (NC) FETs. He also compared CMOS with TFETs and talked about the devices suitable for low power, low voltage applications. Dr. Bagga also introduced Quantum Computing. At the end of his presentation, there was an interactive Q/A session, where the students, as well as our faculty participated. Finally, our HOD Sir concluded the session.

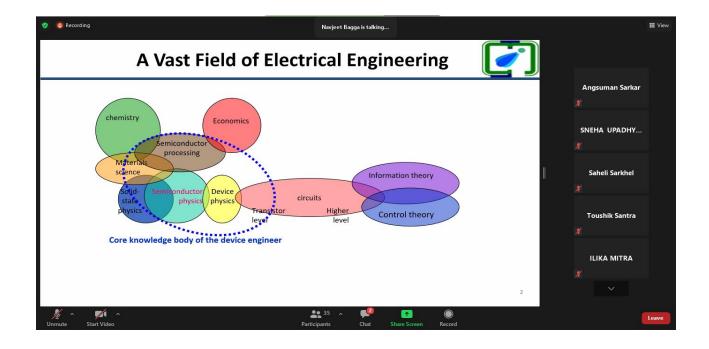
The event was very beneficial for the participants, interested in this particular field of device engineering. Dr. Bagga cleared all the doubts of the attendees and has enlightened them in a path to pursue further studies in this as well. Thus, it was a successful event, in the presence of all interested participants.







# **EVENT PICTURE**









# An introductory session on IEEE Electron Devices Society Student Branch Chapter, NSEC

ED Netaji Subhash Engineering College Student Branch Chapter conducted an introductory session on the "Benefits of IEEE EDS Student Branch Chapter" on April 20, 2021 using Google Meet platform.

More than 45 participants (BTech, ECE student from 1st and 2nd year) including seven members of our chapter had joined the event. Sneha Upadhyay (Chapter Chair, IEEE EDS SBC) and ToushikSantra (Chapter Vice Chair, IEEE EDS SBC) presented a detailed introduction on IEEE EDS student branch chapter and how it will be beneficial for them. During this event, they had shared PPT and presented some pictures of previous events. They motivated the participants to be a part of IEEE EDS. After that they interact with the participants and clear all their doubts related to this topic. A google form for membership survey was provided to collect participant interest and feedback. 28 participants have filled up the form till now and 8 of them confirmed to be a part of IEEE EDS SBC.

The event was very beneficial for students who are interested in this domain. The participants had the opportunity to know about IEEE EDS. We are still getting positive response from the participants.









# 2020 IEEE International Conference for Convergence in Engineering

5-6 September • Kolkata, India



# **PROCEEDINGS**

ISBN: 978-1-7281-7339-9 PART: CFP20JBA-USB

Organised by
Netaji Subhash Engineering College, Kolkata, India



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Edited by

Anirban Kundu Koushik Dutta Tridibesh Nag Chandra Das

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# Welcome Message from the General Chair, IEEE ICCE 2020



Welcome to **IEEE International Conference for Convergence in Engineering** (ICCE **2020**), the *Ist International Conference* of Netaji Subhash Engineering College, Kolkata to be held on 5<sup>th</sup> & 6<sup>th</sup> September 2020 using virtual platform airmeet.com. It is my immense pleasure to inform that ICCE 2020 will be organized in collaboration with IEEE (IEEE Conference Record 50343), IEEE PES Kolkata Chapter and IEEE Kolkata Section.

Leading academicians and researchers have confirmed their presence to exchange and share their research experiences, latest research results and innovative ideas in the track areas of Electronics, Electrical and Computer covering the major thrust domain of IEEE along with another track under interdisciplinary category.

The main objective of ICCE 2020 is to motivate students, research scholars and industry professionals towards innovative research in engineering fields for technological convergence. We know that industry plays a key role in the market driven research and spanking implementation whereas, academicians bring novel research ideas and approaches to solve business problems. Technology convergence is when different forms of technologies cohabitate in a single device, sharing resources and interacting, creating new technology and convenience. The fourth industrial revolution is not driven by any particular technological advancement, but rather networks together many disparate and already existing technologies, along with immense cloud-based computing power, to automate a huge variety of tasks and decisions. It means bringing together big data, cloud systems, machine learning, robotics, Internet of Things, block-chain and other emerging technologies to transform the journey from raw material to consumer. Under this scenario, this conference is planned to bring together different areas of research works under one roof where energetic researchers will be motivated to integrate various technologies by gaining in depth knowledge of numerous novel technologies.

In ICCE 2020, we shall witness some of the excellent deliberations by leading academicians, scientists, researchers and Industry stalwarts from USA, UK, Mexico, France, Italy, Bangladesh and India. Renowned academic leaders from top notch institutes of India and abroad viz. Imperial College of London, Staffordshire University, UK, University of Tennessee, USA, Kennesaw State University, Florida, Vanderbilt University, USA, NPI-Mexico, UEST-China, BUET-Bangladesh, IISC Bangalore, IIT Kanpur, IIT KGP, IIT Delhi, IIT Roorkee, IIT Guwahati, IIEST, JU, CU, IPRE, IIT-ISM Dhanbad, ISRO, SAMEER, NIT-Durgapur, NIT-Nagpur, NIT-Kalikat, etc. will deliver sessions. From Industry and other sectors we shall have presence of industry stalwarts from top-notch industries viz. Exide Industries, PWC, CERNER Corporation, Data Science Foundation, Elect. Castings Ltd., CESC Ltd, ITC Infotech, Aditya Birla Group, ABP Ltd, Crossways IT Ltd. Bangladesh, Earnest & Young, Ideation Technology Solutions Ministry of IT & Electronics, Govt. WB, NASSCOM, WEBEL, and Jupiter Wagons Group etc.

A total 53 sessions include 7 Key-note addresses, 11 Plenary sessions, 9 Special sessions, 4 workshops & Tutorial sessions, 2 Industry Panel Discussions, 1 Students' Panel Discussion, Inaugural session, Valedictory session, cultural session and 16 Interactive technical sessions to be organized concurrently for high-quality contributory papers through oral and poster presentations during these two days in six virtual auditoriums. A total of 97 research papers are accepted out of total 240 submitted papers in this conference and above 550 participants have already registered to attend the conference.

I am thankful from the bottom of my heart to all my team members of the conference who have worked tirelessly for making ICCE 2020 a reality. I wish for the grand success of ICCE 2020.

**Prof. Tirthankar Datta** General Chair, ICCE 2020

# Message from the Organizing Chair, ICCE 2020



It is with great pride, pleasure and honour that Netaji Subhash Engineering College has been successful in organizing the 1<sup>st</sup> IEEE International Conference under critical circumstances due to the Covid-19 pandemic. However, the research and development have to keep running with whatever challenging situations it may face. It is often said that in the middle of every difficulty lies an opportunity. A conference is a right platform to publish the research outcome and interact with the international community.

Due to COVID-19 pandemic, we are compelled to organize ICCE 2020 in virtual mode. We are very much successful to provide a premier interdisciplinary forum for scientists, engineers, and practitioners to present their latest research results, ideas, and applications. This brings together leading academicians, scientists, and researchers from around the world to exchange

and share their research experiences. The conference consists of pre-conference workshops, lectures and tutorials by experts, interactive sessions of high-quality contributory papers through oral presentations.

I am very much thankful to IEEE PES Kolkata Chapter for sponsoring this conference financially. I am also thankful to IEEE Kolkata Section for providing technical co-sponsorship. We have also received technical sponsorship from the IEEE COMSOC Kolkata Chapter and the IEEE AP/MTT Kolkata Chapter.

Finally, I would like to thank everybody involved in the conference organizing committee. Without this efficient and motivated team, it would not be possible to organize such a successful event. I am thankful to all technical program committee members, reviewers, authors, presenters, invited speakers, and session chairs for their enormous contribution. Hope, all the participants have enjoyed a very successful and memorable conference.

Koushik Dutta
Organizing Chair, ICCE 2020

# **Message from the Technical Program Chair, ICCE 2020**



On behalf of the Technical Program Committee of ICCE 2020, I take pleasure in welcoming you all to this event organized by Netaji Subhash Engineering College, Kolkata.

Technical contributions were invited in four tracks: a) Computer Science Engineering & Information Technology, b) Electronics & Communications Engineering, c) Electrical Engineering, and d) Interdisciplinary. This year, we have received 240 technical papers as preliminary submissions. Further 223 papers were considered after preliminary screening for consideration in the reviewing process toward the conference. Among which 76 papers were in Computer Science Engineering & Information Technology Track, 70 papers were in Electronics & Communications Engineering Track, 50 papers were in Electrical Engineering Track, and 27 papers were in Interdisciplinary Track.

Thanks to the untiring efforts of my Technical team, each paper underwent a rigorous multi-tier review process and received multiple independent reviews. All the submitted papers were checked for plagiarism prior to review process using IEEE CrossCheck Portal. The report was passed on to the track chairs and reviewers for their critical evaluation of the work. After a careful selection phase by different experts from Academic Institutions of repute and Engineering Industries, 97 papers were accepted for presentation in the conference program. All the 97 papers were accepted for oral presentation.

Those with Similarity Index above 30% but recommended by the reviewers were provisionally accepted subject to the condition that the Similarity Index should be reduced to acceptable limits in the final camera-ready submission in order to be actually accepted. The final camera-ready accepted paper tally is at total 97 papers for oral presentation only. This implies an acceptance ratio of 43.5%.

The oral presentation papers had been organized into 16 Technical sessions in four parallel tracks as follows:

- Computer Science Engineering & Information Technology track had 5 sessions.
- Electronics & Communications Engineering track had 5 sessions.
- Electrical Engineering track had 3 sessions.
- Interdisciplinary track had 2 sessions.
- 1 common session was organized for Computer Science Engineering & Information Technology and Electronics & Communications Engineering tracks.

Besides the regular papers, the conference also had seven Keynote Lectures, eleven Plenary Lectures, eight Special Session Lectures, three Panel Discussions, two Pre-conference Workshops, two Pre-conference Tutorials delivered by leading international & national personalities from research & academia on advanced research areas and cutting-edge technologies.

The success of this conference would not be possible without the efforts of numerous people, officially on the list and also those behind the scene. My gratitude to my Technical Program Committee members, especially my Track Chairs, who bore most of the trouble to get the review executed. Special thanks to Dr. Supriya Dhabal, Dr. Chandra Das, Prof. Debasis Barman, Dr. Tridibesh Nag, Dr. Swapna Roy, Prof. Sukumar Roy, Prof. Susovan Mukhopadhyay.

I take this opportunity to express my special gratitude to the General Chair Prof. Tirthankar Dutta, Organising Chair Dr. Koushik Dutta, Finance Chair Dr. Tridibesh Nag, and Publication Chair Dr. Chandra Das. I would like to thank "airmeet.com" for facilitating the virtual venue for our event and providing all logistic support during the Covid-19 pandemic scenario. I also thank all the keynote & plenary speakers for agreeing to share their expertise on the ICCE 2020 platform. I thank all the track chairs, technical team members and other volunteers for their dedicated support to this event. Finally, I thank the authors, attendees and session chairs for their continued support on the ICCE 2020.

It was a great experience for me to serve as the TPC Chair of ICCE 2020, and I hope that you find the conference stimulating, fulfilling and enjoyable. I hope you have also found time to relish the beauty and rich heritage of our culture & hospitality.

Anirban Kundu

Technical Program Chair, ICCE 2020

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2.1		Bifurcation Control of Single Phase PWM	Debashis Chatterjee	100-
21	64	Semi-Converter Fed DC Series Motor	and Krishnendu	104
		Drive	Chakrabarty	
		Application of Fuzzy Answer Set	Sandip Paul, Kumar	105
22	65	Programming in Hybrid Deep Neural-	Sankar Ray and	105-
		Symbolic Architecture	Diganta Saha	109
			Abhimanyu Roy,	
			Akash Deep Singh,	
			Aniket Saha, Suvranil	
23	66	A Novel Design of Reversible Gate using	Saha, Vineeta Gupta,	110-
23	00	Quantum-Dot Cellular Automata (QCA)	Zhu Qingyi, Sandip	115
			Bhattacharya and	
			Subhankar	
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		Aluminium Induced Vapor Phase Stain	Joyita Biswas, Rajib	
24	69	Etch Method for Generating Porous	Barui, Sayantani Das,	116-
24	0)	Silicon Structure	Subhankar	120
			Bandyopadhyay	
		A New Hole-walled Multi-Core Fiber for	Sonali Basak, Santu	121-
25	72	Space Division Multiplexing for Improved	Sarkar, N R Das	123
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		Zone based Indexing Model for Database	Aditi Bankura, Anirban	124-
26	74	Identification in Search Query Processing	Kundu and Sutirtha	128
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			Debottam Mukherjee,	
		Application of Machine Learning for	Samrat Chakraborty,	129-
27	75	Speed and Torque Prediction of PMS	Pabitra Kumar	133
		Motor in Electric Vehicles	Guchhait and Joydeep	133
			Bhunia	
		A Novel Deep CNN Model for	Hari Mohan Rai,	
28	76	Classification of Brain Tumor from MR	Kalyan Chatterjee,	134-
	, ,	Images	Arpita Gupta and Alok	138
			Dubey	
20	70	Advanced Cloud based Task Scheduling	Mou De, Anirban	139-
29	78	Architecture to Optimize Performance in	Kundu and Sutirtha	140
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30	80	Advanced Design of Transmitting Antenna	Aparajita Datta Sinha	144-
		System for Polarization Modulation	and Koushik Dutta	146
31	84	Health Care System for Home Quarantine	John Colaco, Rajesh B.	147-
		People	Lohani	151
32	86	Timing Signal Generator for High	Jasmin B. Mulla, Ajay	152-
32	00	Frequency Radar	Khandare, Rupali P.	155
L			Patil	

33	88	Comparative Study on the Effect of Order and Cut off Frequency of Butterworth Low Pass Filter for Removal of Noise in ECG Signal	Subhadeep Basu and Samiul Mamud	156- 160
34	90	Analysis on Speech Recognition for Automation	Koustav Dhar Chowdhury, Debosruti Choudhury, Afroja Sharmin, Abhinaba Roy and Anirban Kundu	161- 164
35	91	Investigation of the Insulation Condition of Contaminated Solid Epoxy Insulators	Sandipan Kumar Paul, Subrata Biswas, Tridibesh Nag and Sovan Dalai	165- 169
36	93	Multiple Functions Prediction of Yeast Saccharomyces Cerevisiae Proteins using Protein Interaction Information, Sequence Similarity and FunCat Taxonomy	Sovan Saha, Piyali Chatterjee, Subhadip Basu and Mita Nasipuri	170- 174
37	94	An experimental Study to Investigate the Condition of Metal Oxide Surge Arrester under Polluted Environment	Arup Kumar Das, Sovan Dalai and Biswendu Chatterjee	175- 179
38	97	Survival Prediction Model of Renal Transplantation using Deep Neural Network	Somenath Chakraborty and Chaoyang Zhang	180- 183
39	101	Manhattan Distance based Nearest Vicinity Guided Filter Design for High Density Salt and Pepper Noise Removal	Aritra Bandyopadhyay, Kaustuv Deb, Atanu Das and Rajib Bag	184- 188
40	103	Decoupling Controller Design for a Multivariable Time Delay System	Sudeshna Dasgupta and Smita Sadhu	189- 194
41	105	Improved Dynamic Load Balancing Approach in Cloud Computing	Soumen Swarnakar, Ritik Kumar, Saurabh Krishn and Chandan Banerjee	195- 199
42	106	Investigation on Effects of Thermal Ageing on LDPE based on Polarization and Depolarization Currents	Subhajit Maur, Biswajit Chakraborty, Sovan Dalai, Biswendu Chatterjee	200- 204
43	107	Investigation on Activation Energy and Temperature Conductivity Dependency of Laboratory Prepared Mixed Insulation Samples	Biswajit Chakraborty, Arijit Mondal, Subhajit Maur, Biswendu Chatterjee, Sovan Dalai	205- 209

44	109	Smart Cart: A Distributed Framework	Bipin Kumar Yadav, Akash Burman, Abhoy Mahato, Manish Choudhary and Anirban Kundu	210- 213
45	110	Realization and Implementation of Optical Reversible Universal Quadruple Logic Gate (ORUQLG)	Arjun Hati, Animesh Bhattacharya, Soujanya Ray and Amal K Ghosh	214- 219
46	112	Phase Disposition PWM (PD-PWM) Technique to Minimize WTHD from a Three-Phase NPC Multilevel Voltage Source Inverter	Rishiraj Sarker	220- 224
47	113	Performance Improvement of Current Controller in Grid-Tie Solar Inverter Using Parameter Estimation	Saily Chakrabarti	225- 229
48	114	A Novel Jackson's Widowbird Mating Optimization Algorithm	Ritu Raj Sharma and Partha Ghosh	230- 234
49	115	Comparison of Deep CNN and ResNet for Handwritten Devanagari Character Recognition	Suprava Patnaik, Saloni Kumari and Shreya Das Mahapatra	235- 238
50	116	A Predictive Analysis Model of Customer Purchase Behavior using Modified Random Forest Algorithm in Cloud Environment	Soumi Ghosh and Chandan Banerjee	239- 244
51	117	A Simple Approach to Detect and Count Missing Cardiac Pulses and PPG Based Heart Rate Sensing	Soumyadip Jana, Souradeep Mullick, Sayan Sarkar, and Partha Sarathi Pal	245- 249
52	119	Tile-based N-variable Symmetric Logic Function Syntheses in Quantum-dot Cellular Automata	Arindam Sadhu, Kunal Das, Debashis De and Maitreyi Roy Kanjilal	250- 254
53	121	Modified Genetic Based Algorithm for Load Balancing in Cloud Computing	Soumen Swarnakar, Neeraj Kumar, Amit Kumar and Chandan Banerjee	255- 259
54	123	Numerical Approach for Finding the Solution of Single Term Nonlinear Fractional Differential Equation	Ramashis Banerjee, Debottam Mukherjee, Pabitra Kumar Guchhait, Samrat Chakraborty, Joydeep Bhunia and Arnab Pal	260- 263

55	124	Quadruple Magnitude Comparator (QMC) using SLM and Savart Plate	Shyandeep Das, Animesh Bhattacharya, Arijit Sarkar, Sidhartha Chandra and Amal K Ghosh	264- 268
56	127	Power Theft Detection in Low Voltage Distribution Network	Sreemoyee Bose, Supriyo Das, Arijit Dey, Jyotirmoy Das and Syamasree Biswas Raha	269- 274
57	129	Feature Extraction and Classification of Phonocardiograms using Convolutional Neural Networks	Devjyoti Chakraborty, Snehangshu Bhattacharya, Ayush Thakur, Aritra Roy Gosthipaty and Chira Datta	275- 279
58	132	Demux Controlled Sensor based Smart Irrigation System	Sanchita Gorai, Alekh Kumar and Anirban Kundu	280- 284
59	136	Design and Development of Solar Power Hybrid Electric Vehicles Charging Station	Soham Bhadra, Priyodeep Mukhopadhyay, Satyaki Bhattacharya, Snehasis Debnath, Swarnali Jhampati and Arabindo Chandra	285- 289
60	139	Air Pollution Hotspot Identification and Pollution Level Prediction in the City of Delhi	Soumyadeep Sur, Rohit Ghosal and Rittik Mondal	290- 294
61	142	Design and Validation of an Antenna Array for Cloud Radio Access Network Applications	Bikash Chandra Sahoo, Soumya Ranjan Mishra, Dillip Dash and Kodanda Dhar Sa	295- 299
62	143	Design and Development of Real Time Patient Health Monitoring System using Internet of Things	Aditya Hartalkar, Varada Kulkarni, Abisha Nadar, Jennifer Johnraj and R. D. Kulkarni	300- 305
63	144	Forecasting Apple Inc. Stock Prices Using S&P500- An OLS Regression Approach with Structural Break	Trishit Banerjee	306- 310
64	145	Corporate Networking with Advance Routing, Switching and Security	Jayanta Ghosh	311- 314

65	146	A Relative Comparison of Training Algorithms in Artificial Neural Network	Saurav Kumar, Rishabh Kumar Mishra, Anuran Mitra, Soumita Biswas, Sayantani De and Raja Karmakar	315- 319
66	148	Model Selection for Predicting Breast Cancer using Supervised Machine Learning Algorithms	Ajit Kumar, Rajkumar Patra and Anupam Ghosh	320- 324
67	155	Design of UWB Monopole Antenna with 5.5/7.5 GHz Enhanced and Controllable Dual Band Rejection Characteristics	Rajarshi Sanyal, Srimita Coomar, Debasree Chanda(Sarkar), Partha Sarathi Bera and Partha Pratim Sarkar	325- 329
68	158	Image Registration using Bio-inspired Algorithms	Kaushik Shaw, Puja Pandey, Shyandeep Das, Debasmita Ghosh, Pratikshan Malakar and Supriya Dhabal	330- 334
69	159	Multilevel Thresholding based Image Segmentation using Optimization Algorithm	Pratikshan Malakar, Debasmita Ghosh, Kaushik Shaw, Puja Pandey, Shyandeep Das and Supriya Dhabal	335- 339
70	162	Deep Greedy Network: A Tool for Medical Diagnosis on Exiguous Dataset of COVID-19	Sumagna Dey, Saptarshi Biswas, Srija Nandi, Subhrapratim Nath and Indrajit Das	340- 344
71	165	Design of Rectangular Microstrip Antenna with Defected Patch Surface for Improved Cross-Polarized Radiations	Poornima S, Halappa R Gajera, Chandramma S and Koushik Dutta	345- 346
72	166	Decoupled MultiLoop Control of Switched Inductor Z-Source Inverters for Distributed Generations	Samant Kumar Singh, Sourav Bose and Prakash Dwivedi	347- 351
73	167	Analysis on Data Transmission using LIFI	Ankita Saha, Swarnali Chatterjee and Anirban Kundu	352- 356

74	170	Automatic Detection of Gender from Face and Palm Images using a 2-CNN Framework	Pratick Ghosh, Devjyoti Saha, Diptangshu De, Sourish Sengupta and Tripti Majumdar	357- 360
75	175	Design and Implementation of Trash Collection System for Smart Cities	Soumyadeep Garai, Soumyadip Sharma and Biswarup Ganguly	361- 365
76	176	Medical Image Enhancement using Salp Swarm Algorithm	Dip Kumar Saha and Supriya Dhabal	366- 370
77	177	Dual-Band Design of Microstrip Patch Antenna with Copper Ring Superstrate for X-Band Applications	Halappa R. Gajera, Koushik Dutta, Chandrashekar K S, Poornima S, and Chandrama S	371- 373
78	178	Medical Image Fusion using PCNN Optimized by Whale Optimization Algorithm	Ritwik Raha, Arpan Sengupta and Supriya Dhabal	374- 378
79	179	A Novel Regression based Technique for Batsman Evaluation in the Indian Premier League	Arnab Santra, Abhirup Sinha, Pritilata Saha and Amit Kumar Das	379- 384
80	182	Combined Effect of Microwave Radiation and Diabetes on the EEG of Rat Brain	Anirban Sengupta, Surya Pal Singh, Sukumar Roy and Amit Kumar Ray	385- 388
81	183	Medical Image Fusion using Local IFS- Entropy in NSST Domain by Stimulating PCNN	Niladri Shekhar Mishra and Supriya Dhabal	389- 392
82	188	Quasi-Optical Design Approach for Resonant Cavity Antenna with Improved Characteristics	Koushik Dutta, Puneet Kumar Mishra, and Debatosh Guha	393- 394
83	189	Study on Structure and Properties of Crystalline Hydroxyapatite Obtained from Biological and Synthetic Sources	Dalia Acharjee, Mayukh Das, Sujan Krishna Samanta, Piyali Basak and Sukumar Roy	395- 398
84	194	Real Power Rescheduling of Generator for Transmission Line Congestion Management using Atom Search Algorithm	Subhasish Deb, Subir Datta, Ksh. Robert Singh and Ramesh Kumar	399- 404
85	195	The Performance Enhancement of BLDC Motor Using Halbach Array Rotor	Mousumi Jana Bala, Debarsi Roy and Anindita Sengupta	405- 409

198	Causality Analysis of Emotional States from EEG Response	Ritwik Raha, Arpan Sengupta and Anuradha Saha	410- 415
201	An Efficient Predictive Analysis Model of Customer Purchase Behavior using Random Forest and XGBoost Algorithm	Subhatav Dhali, Monalisha Pati, Soumi Ghosh and Chandan Banerjee	416- 421
212	A Study on Event Identification on Social Media Data	Rishov Nag, Soumik De, Nabhoneel Majumdar and Pratik Dutta	422- 427
215	An Efficient Cascaded Filter Design using Dragonfly Algorithm for Image Noise Reduction	Roshni Chakrabarti and Supriya Dhabal	428- 432
223	Performance Survey of MANET Routing Protocols with TCP Congestion Control Algorithms	Suparna Banerjee, Arindam Ghosh, Sourav Mahapatra and Raja Karmakar	433- 438
224	HLS Based Implementation of Modified DE-RIW Algorithm on FPGA and P-SoC	Shivdeep, Ankur Biswas, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman	439- 443
226	Reversible Color Image Watermarking Algorithm using Reverse Contrast Mapping	Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman	444- 447
228	Study the effect of Pd sensitization on Hydrogen and Methane Sensing Performances of Sol- Gel Grown Nano WO3/SiO2/Si Sensor	Bijoy Kantha, Subhashis Roy, Jyotirmoy Nandy, Gour Gopal Jana, Subir Kumar Sarkar	448- 451
230	Impact of Multiple DG Penetration in Energy Market	Ritu Jain and Vasundhara Mahajan	452- 457
234	Performance Analysis of Multilingual Encryption for Enhancing Data Security using Cellular Automata based State Transition Mapping: A Linear Approach	Ayan Banerjee and Anirban Kundu	458- 463
239	Design of Automatic Key Finder for Search Engine Optimization in Internet of Everything	Ganesh Khekare and Pushpneel Verma	464- 468
244	Optimization of Waiting Time in a Traffic Signal: An Automated approach	Somasree Bhadra, Sunirmal Khatua and Anirban Kundu	467- 472
	201 212 215 223 224 226 228 230 234 239	An Efficient Predictive Analysis Model of Customer Purchase Behavior using Random Forest and XGBoost Algorithm  A Study on Event Identification on Social Media Data  An Efficient Cascaded Filter Design using Dragonfly Algorithm for Image Noise Reduction  Performance Survey of MANET Routing Protocols with TCP Congestion Control Algorithms  HLS Based Implementation of Modified DE-RIW Algorithm on FPGA and P-SoC  Reversible Color Image Watermarking Algorithm using Reverse Contrast Mapping  Study the effect of Pd sensitization on Hydrogen and Methane Sensing Performances of Sol- Gel Grown Nano WO3/SiO2/Si Sensor  Impact of Multiple DG Penetration in Energy Market  Performance Analysis of Multilingual Encryption for Enhancing Data Security using Cellular Automata based State Transition Mapping: A Linear Approach Design of Automatic Key Finder for Search Engine Optimization in Internet of Everything  Optimization of Waiting Time in a Traffic	201 An Efficient Predictive Analysis Model of Customer Purchase Behavior using Random Forest and XGBoost Algorithm  212 A Study on Event Identification on Social Media Data  213 An Efficient Cascaded Filter Design using Dragonfly Algorithm for Image Noise Reduction  214 Performance Survey of MANET Routing Protocols with TCP Congestion Control Algorithms  225 Performance Survey of MANET Routing Protocols with TCP Congestion Control Algorithms  226 Reversible Color Image Watermarking Algorithm using Reverse Contrast Mapping  227 Algorithm using Reverse Contrast Mapping  228 Study the effect of Pd sensitization on Hydrogen and Methane Sensing Performances of Sol- Gel Grown Nano WO3/SiO2/Si Sensor  230 Impact of Multiple DG Penetration in Energy Market  231 Performance Analysis of Multilingual Encryption for Enhancing Data Security using Cellular Automata based State Transition Mapping: A Linear Approach  232 Design of Automatic Key Finder for Search Engine Optimization in Internet of Everything  243 Optimization of Waiting Time in a Traffic Signal: An Automated approach  244 Optimization of Waiting Time in a Traffic Signal: An Automated approach  245 Subhatav Dhali, Monalisha Pati, Soumi Ghosh and Chandan Banerjee  Rishov Nag, Soumik Dee, Nabhoneel Majumdar and Pratik Dutta  Roshni Chakrabarti and Supriya Dhabal  Suparna Banerjee, Arindam Ghosh, Sourav Mahapatra and Raja Karmakar  Shivdeep, Ankur Biswas, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdeep, Sudip Ghosh, Tridibesh Nag, Santi Prasad Maity and Hafizur Rahaman  Shivdee

# PHOENIX EVENTS REPORT NETAJI SUBHASH ENGINEERING COLLEGE UPDATED UPTO OCTOBER-2023

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## **EVENTS AT A GLANCE - UPTO OCTOBER'23**

DATE(S)	EVENT	WING	PERSON RESPONSIBLE 1	PERSON RESPONSIBLE 2	PERSON RESPONSIBLE 3	ADDITIONAL CONTACTS	PARTICIPANTS / ADDITIONAL REMARKS
13/08/2022 - 14/08/2022	BRAIN FREEZE	CORE	ANNESHA ROY	SHARANDEEP MUKHOPADHYAY	YASH SHAW	MANAN, ANKANA, ANKIT	97 PARTICIPANTS
21/09/22 - 23/09/22	GETTING STARTED WITH REACTJS	CYBERNIX	ARPIT ANAND	SUVADEEP MAITY	NA	NA	150 LIVE VIEWERS
26/09/2022	FITNESS & NUTRITION	CORE	SHANKHA DEEP ROY	RAAJBIR BAJPAIE	NA	NA	54 PARTICIPANTS
20/10/2022 & 22/10/2022	GIT & GITHUB	CYBERNIX	ARPIT ANAND	SUVADEEP MAITY	NA	NA	287 LIVE VIEWERS
29/10/22 - 05/11/22	ОТР	ELOQUENSE	RUDRANEEL BHATTACHARYA	FARUQUE AZIZ	NA	NA	72 SUBMISSIONS
13/12/22 - 14/12/22	POLEMICS	ELOQUENSE		ELOQUENSE + CORE + II	c	NA	40 PARTICIPANTS + 39 ATTENDEES
17/12/22 - 18/12/22	TEXPLORER	CORE		CORE + GDSC + GNX		NA	150 PARTICIPANTS
19/12/22 - 21/12/22	ROBOTICS WORKSHOP	ROBONIX	AMAN	ILIKA MITRA	NA	NA	60+60 PARTICIPANTS
22/12/22 - 23/12/22	HAPPY TECHMAS	CORE	CORE		NA	120+ ATTENDEES	
17/05/23 - 19/05/23	AVENIR	AVENIR CORE CORE		NA	300+ ATTENDEES		
12/10/2-13/10/23	Rhetoric Rumble	ELOQUENSE	CORE			N/A	100+ ATTENDEES
11/10/23-21/10/23	SNAP-A-THON	CORE	CORE			N/A	30+ SUBMISSIONS
11/10/23-21/10/23	REEL-O- MANIA	CORE	CORE			N/A	20+ SUBMISSIONS

The above chait is a small tabulation summaiising all the events undeitaken and oiganised by Phoenix and the wings undei Phoenix foi the duiation of August 2022 to August 2023. Listed below aie the specifics and paiticulais foi each event.

In addition, we've listed planned events at the top which we'ie in the piocess of conducting.

# EVENT 1 - BRAIN FREEZE [INTRA COLLEGE QUIZ]

**Dates**: 13.08.2022 & 14.08.2022 **Wing Responsible**: Coie

Event Details: Intia College Quiz Paíticipation Details: 97 Paiticipants

**Additional Details**: The coie team of Phoenix hosted an intei-college multidisciplinally quiz competition on the 13th and 15th of August, 2022 in

association with unstop.com (foimeily daie2compete).

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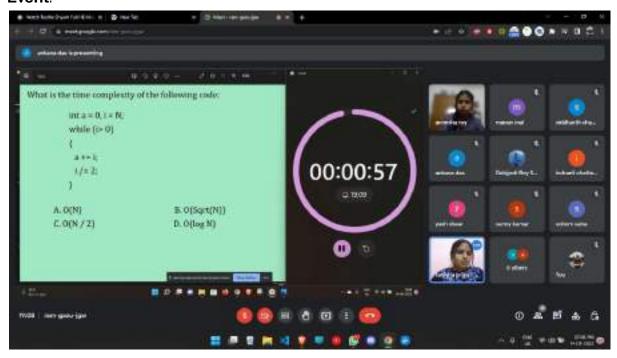
#### Registiation Link:

https://docs.google.com/forms/d/18vgfA5v77YCvivAKqpFP0bAW5z\_rK6cDrrx0EJp8tGo/edit#responses

#### Paíticipants List Link:

https://docs.google.com/spreadsheets/d/1VGDltQMI9UX8SwXjqQrUBtl9LMi0HBoVRqswRVeJlq 0/edit?resourcekev#qid=1152030272

#### Event:



# <u>EVENT 2 - GETTING STARTED WITH REACTJS</u> [PROJECT BASED SESSION]

**Dates**: 21.09.2022 - 23.09.2022 **Wing Responsible**: Cybeinix

**Event Details**: Technical Session With Pioject

Paíticipation Details: 150 Live Vieweis

**Additional Details**: Cybeinix, the technical wing of Phoenix, hosted a technical and educational session to teach the fundamentals and advanced concepts

of React JS on 21st Septembei 2022 thiough 23id Septembei 2022.

Posteí:





# 限匿企 JS



SESSION WILL BE HELD FROM 21ST-23RD SEP 2022

TOPICS TO BE COVERED

DAY 1 | JS pre-requisites for ReactJS DAY 2 | Introduction to ReactJS. DAY 3 : Project building

#### CONTACT

ARPIT

SUVADEEP HAITY 80016 18512







phoenix\_neec2020

#### **Event Link:**



## **EVENT 3 - FITNESS & NUTRITION [WEBINAR]**

Dates: 26.09.2022

Wing Responsible: Coie

Event Details: Educational Webinai On Health And Fitness

Paíticipation Details: 54 Paiticipants

**Additional Infoimation:** The coie team of Phoenix oiganised a one o webinai with founding membei of Phoenix and foundei of Hustle and Health, Mi. Ritesh

Singh on the 26th of Septembei, 2022.

Posteí:



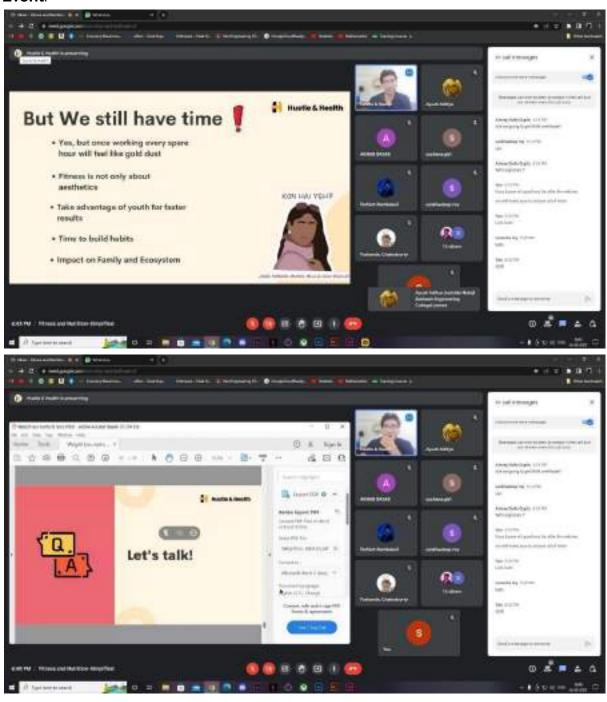
#### Registiation Link:

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#### Paíticipants List Link:

https://docs.google.com/spreadsheets/d/1JsK6uCxsWQEXqVst6hv8008KoDikW3cUBvErAmUdefk/edit?resourcekev#qid=911056872

#### Event:



## **EVENT 4 - GIT & GITHUB [TECHNICAL SESSION]**

Dates: 20.10.2022 & 21.10.2022
Wing Responsible: Cybeinix
Event Details: Technical Session
Paíticipation Details: 287 Live Vieweis

**Additional Infoimation**: Cybeinix, the technical wing of Phoenix, oiganised a two day session aimed towaids beginneis to teach them the fundamentals of

VCS with Git and GitHub on 20th Octobei and 21st Octobei, 2022.

Posteí:



#### Registiation Link:

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#### Paíticipants List Link:

https://docs.google.com/spreadsheets/d/1zC5wJ WdCE9f1JK3Y 47enhvqAiOa4UiUN2vX6JEZR0/e dit?resourcekev#gid=435593552

#### **Social Media Links:**

Instagíam: https://www.instagíam.com/p/Ci-Zelbv33s/

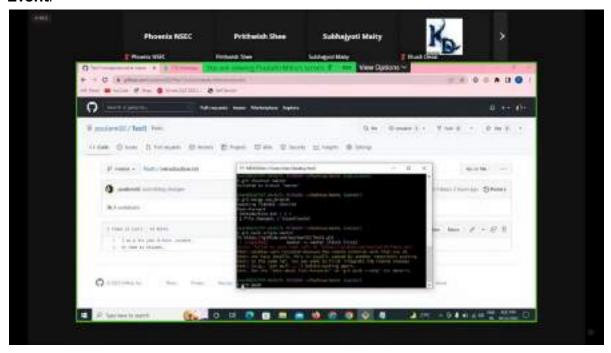
Linkedin: https://shoituil.at/beioW

Facebook:

https://www.facebook.com/photo?fbid=449205997319209&set=a.42920713265242

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#### Event:





## **EVENT 5 - OTP\_ [TECHNICAL WRITING]**

Dates: 25.10.2022 - 05.11.2022 Wing Responsible: Eloquense

**Event Details : Technical Aiticle Wilting Contest** 

Paíticipation Details: 72 Submissions

**Additional Infoimation**: Eloquense, the literal wing of Phoenix, oiganised a iunning event spanning 2 weeks aimed towards gathering the best technical articles from our students. The event lasted from 25th of October through and up to 5th November, 2022.

Posteí:



#### Registíation Link:

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#### **Paíticipant List Link:**

https://docs.google.com/spreadsheets/d/1GzONh0c7regU-xFp3aHUPv5NztXctNuPjpG4EPDwqt E/edit?resourcekey#gid=934248479

#### **Social Media Links:**

Instagíam: https://instagíam.com/p/CkJWGdJv0i5/

Linkedin: <a href="https://shoítuíl.at/ilvJU">https://shoítuíl.at/ilvJU</a>

Facebook:

https://www.facebook.com/photo?fbid=452603870312755&set=a.42920713265242

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## <u>EVENT 6 - POLEMICS - OFFLINE EVENT</u> <u>[DEBATE CONTEST]</u>

Dates: 13.12.2022 - 14.12.2022 Wing Responsible: Eloquense Event Details: Debate Contest

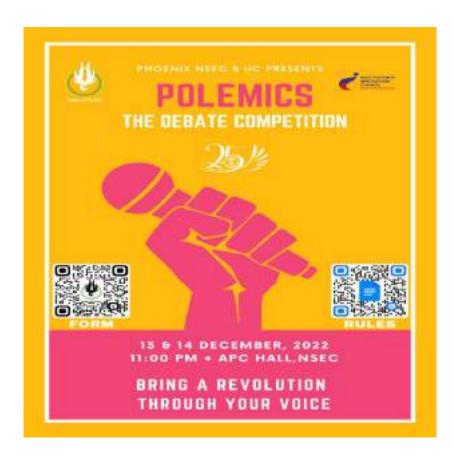
Event Location / Timing : APC Hall, Both Days 11:30 AM - 4:30 PM

Paíticipation Details: 40 + 39 Attendees

**Additional Infoimation**: Eloquense, the literally wing of Phoenix, in association with IIC, NSEC, organised an orine event spanning 2 days aimed towards letting the best debate of NSEC battle it out in a battle of wit over socially and politically ielevant topics that matters to every person out their.

In addition we held a special felicitation ceiemony with the piesence of the Diiectoi sii and esteemed membeis of both IIC and Phoenix and othei faculty membeis foi the piize distiibution ceiemony and felicitation ceiemony.

Posteí:



## Pictuíes :









#### Social Media Links:

https://www.facebook.com/photo/?fbid=485143040392171&set=a,42920713265242 9 | https://www.instagíam.com/p/CmlusEVL16v/?utm\_souíce=ig\_web\_copy\_link - DAY 1 PICTURES

https://www.facebook.com/photo/?fbid=488914903348318&set=pcb.488915360014 939 |

https://www.instagíam.com/p/Cl9BY2yNnEC/?utm\_souíce=ig\_web\_copy\_link - ANNOUNCEMENT POSTER

## **EVENT 7 - Texploiei[DEBATE CONTEST]**

Dates: 17.12.2022 - 18.12.2022

Wing Responsible : CORE + GDSC + GNX

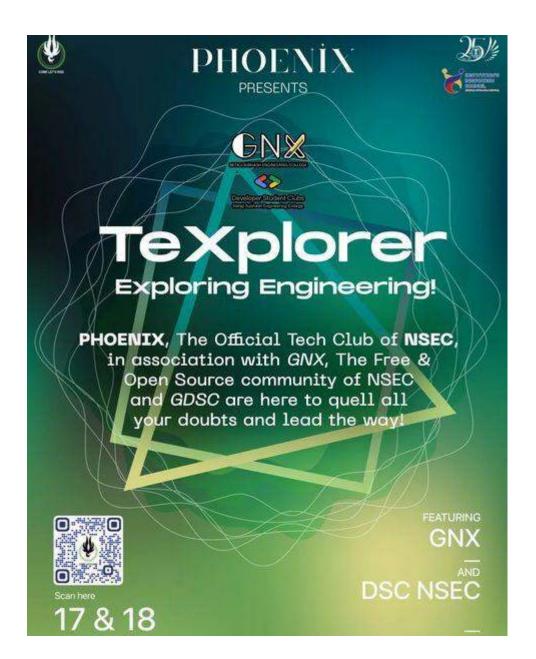
**Event Details : Debate Contest** 

Event Location / Timing: ONLINE BOTH DAYS 6:30PM-8:30PM

Participation Details: 150 Attendees

**Additional Information:** Phoenix, in association with GDSC & GNX organized a two-day online session with student leaders and student participants from all years where they were taught about the various career paths open to engineers, from IT to web development to hardware to Linux and much more.

#### Poster:



#### Social Media Links:

## Instagíam-

https://www.instagíam.com/p/CmPKvEASFEu/?utm souíce=ig web copy link&i gshid=MzRIODBiNWFIZA==

# EVENT 8 - Robotics Woikshop [WORKSHOP]

Dates: 19.12.2022 - 21.12.2022 Wing Responsible: Robonix

**Event Details: ROBOTICS WORKSHOP** 

Event Location / Timing: 1st Day online 6PM-8:30PM, 2nd & 3rd Day PL-1 LAB

12PM - 5PM

Participation Details: 60 + 60 Attendees

**Additional Information:** Robonix, the robotics wing of Phoenix organized a 3 day event, 1 online and two offline to teach students about robotics and IoT, covering everything from the very basics to building real life bots and line followers.

#### Poster:



#### Photos:





#### **Social Media Links:**

#### Instagíam-

https://www.instagíam.com/p/CmRpyjEStCa/?utm\_souíce=ig\_web\_copy\_link&ig\_shid=MzRIODBiNWFIZA==

# EVENT 9 - Happy Texmas [PANEL DISCUSSION]

Dates: 22.12.2022 - 23.12.2022

Wing Responsible: NA / All Of Phoenix & Other Clubs Of NSEC

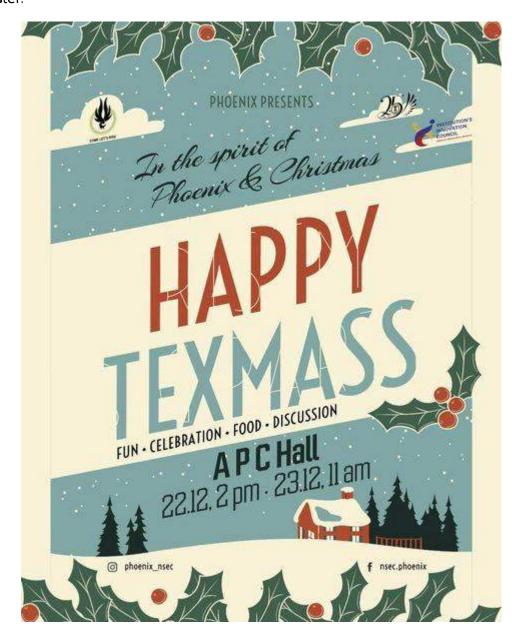
Event Details: Intra College Panel With All Club Leaders, Hosted By Phoenix

Event Location / Timing: APC Hall, Both Days 11:30 AM - 4:30 PM

Participation Details: 120+ Attendees

Additional Information: Phoenix, in association with all the other major clubs of NSEC such as GDSC, GNX, Eco-Cultural, Rotaract NSEC, NCC and Sports Club organized a grand celebration of the engineering spirit with faculty advisors present to talk about the various aspects of engineering, experiences, real world challenges, how to overcome them, stories of personal growth and much more in the spirit of camaraderie and the zeal of the christmas spirit!

#### Poster:



#### Social Media Links:

#### Instagram -

https://www.instagram.com/p/CmcG DSyCy /?utm source=ig web copy link& igshid=MzRlODBiNWFlZA==

#### Facebook -

https://www.facebook.com/photo/?fbid=495570619349413&set=a.4292071326524 29

# EVENT 12 - **AVENIR[INTER COLLEGE TECH FEST]**

Dates: 17.05.2023 - 19.05.2023 Wing Responsible: All Of Phoenix

Event Details: Inter College Tech Fest, Hosted By Phoenix

Event Location / Timing: NSEC College Participation Details: 300+ Attendees

Additional Information: Phoenix, Organised the Inter College Tech Fest after a 3 years gap, conducting more the 15+ events in the span of 3 days attracting over 300+ attendees and participants including both online and offline. There had been Talk shows; Robotic Events like Robosoccer; Oratory Events like Debate, Open Mic, Quiz; Cybernix Events like UX Factor, Stack Overflow, Capture the Flag, Hackathon; Nirmaan Events like CAD Clash, Build the Blocks. Bridge O Mania; Fun Events like Treasure Hunt, Paint Panther, Beg Borrow Steal! And much more. We also had a band performance to end this event with a bang!

#### Poster:



## lmages:









#### Social Media Links:

https://www.instagram.com/p/Crp0l2YL6O0/?utm\_source=ig\_web\_copy\_link&igshid=MzRlODBi NWFIZA==

## **EVENT 11 - Core Team Interview**

Dates: 13th August, 2023

Wing Responsible : Coíe

**Event Details: New Team Foimation** 

**Event Location / Timing: Gmeet, 10pm to 12pm** 

Paíticipation Details: 7+5

Additional Infoimation: Online Interview was held by Core Comittee with the

selected candidates foi the selection of New coie committee.

## **EVENT 12 - Team Formation**

Dates: 24th August, 2023

Wing Responsible: Coíe

**Event Details : New Team Foimation Event Location / Timing : H205, 3pm** 

Paíticipation Details: 7 (New coie committee membeis) +4 (Old coie

committee membe(s) +5 (Faculty Adviso(s and Dean Sir)

Additional Infoimation : A meeting was held in piesence of Dean Sii and Faculty Advisois of Phoenix where the Foimation of New core committee was

made o cial in the piesence of Old coie committee membeis.

## **EVENT 13 - Rhetoric Rumble**

Dates: 12th - 13th October 2023

Wing Responsible: Core

Event Details: Intra college Debate

Competition

Event Location / Timing: O501, 3pm

Paíticipation Details: 100+

Additional Infoimation: A debate took place between the students who

registered themselves. Topics were provided and Judges were invited to judge the

competion.

## Poster:



## **EVENT 14 - SNAP-A-THON**

Dates: 11th - 21th October 2023

Wing Responsible : Core

Event Details: Online Photography

Competition

Event Location / Timing : Online Participation Details : 30+

Additional Information: A photography competition was hosted online in which various

students participated

## Poster:



## **EVENT 15 - REEL-O-MANIA**

Dates: 11th - 21th October, 2023

Wing Responsible : Core

Event Details: Online Reel making

Competition

Event Location / Timing : Online Participation Details : 20+

Additional Information: A Reel competition was hosted online in which various

students participated