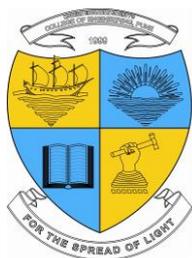**Modern Education Society's Wadia College of Engineering, Pune -01**

**Dept. of Electronics and Telecommunication Engineering**

International Symposium and Conference On
**"Networking Industry and Academia to Build Partnership in Excelling Education *[SYNERGY 2024]"***
**15ᵗʰ & 16ᵗʰ April 2024**

In Association with



ICT Academy
**(Knowledge Partner)**

IETE Pune

Academic Partner

Global Research
Conference Forum

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**Date: 25/04/2024**

# Conference Report

**Name of the Activity:** International Symposium and Conference On
**"Networking Industry and Academia to Build Partnership in Excelling Education [SYNERGY 2024]**
**Date of Activity:** 15/04/2024 to 16/04/2024
**Venue:** Courtyard by Marriott Pune Chakan Plot P-7, MIDC, Chakan Industrial Area Phase-1, Talegaon Chakan Road, Khalumbre, Pune, Maharashtra 410501 **[Hybrid Mode]**

**Objective:**
- Foster knowledge exchange and collaboration between academic researchers and industry professionals.
- Platform for networking, idea and potential collaboration between industry and academia. Potential impact on NEP.

**Target:**
Faculty members, Research Scholars, Post-Graduate and Undergraduate students of ECE and EE departments.

**Chief Patrons:**
Dr. A. S. Chandak, Trustee, M.E.Society
Prof. Sachin Sanap, Trustee, M.E.Society
**Patron:** Dr. M. P. Dale, I/C Principal
**Convener:** Dr. P. P. Mane, HOD E&TC
**Program Advisor:** Prof. Nabegha Yusufzai
**Cordinator:** Dr. M. M. Dhanvijay
**Co- Coordinators:** Dr. K. S. Tiwari,
                                  Prof. Y. M. Ajgar

**Organizing Committee Members:**
Dr. M. P. Dale
Dr. P. P. Mane
Dr. P. B. Chopade
Dr. P. N. Kota
Prof. B. M. Narute
Prof. S. N. Dharwadkar
Dr. K. S. Tiwari
Prof. A. S. Kulkarni
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Prof. G. V. Bomble
Prof. N. Yusufzai
Prof. Y. M. Ajgar
Prof. U. D. Dattasamje
Dr. M. M. Dhanvijay
Prof. P. M. Bagul
Prof. P. S. Tondewad
Prof. N. P. Jangale
Prof. P. S. Deokate
Prof. S. D. Ganage
Prof. S. S. Tikar
Prof. K. P. Shinde
Prof. G. Kulkarni
Mr. S. M. Kate
Mr. S. B. Shinde
Mr. S. A. Dhebe
Mr. S. S. Adsul
Mr. R. H. Hawaldar
Mr. G. A. Patange

**About the conference:**

In association with **IETE Pune Centre, ICT Academy and "Global Research Conference Forum":** International Symposium and Conference On **"Networking Industry and Academia to Build Partnership in Excelling Education" [SYNERGY 2024]** was organized by the Department of E&TC Engineering on 15th & 16th April 2024. It is expected that researchers will bring new prospects for collaboration across disciplines and gain ideas facilitating novel concepts. The theme of this conference will motivate the researchers to adopt the outcome for implementation. The International Symposium and Conference On **"Networking Industry and Academia to Build Partnership in Excelling Education" [SYNERGY 2024]** aims to bring together the researchers, scientists, engineers, and research scholar in areas of Engineering and Technology, and it provides them an international forum for the dissemination of original research, new ideas and practical development experiences. The conference has the focus on the prime issues in the field of engineering and science.

Global Synergy 2024: Networking Industry and Academia to Build Partnerships in Excelling Education (Synergy 2024) stands as a beacon of collaboration and innovation in the realm of

education. In an increasingly interconnected world, the conference serves as a vital platform for forging meaningful partnerships between industry leaders and academic institutions. By harnessing the collective expertise of professionals, researchers, educators, and policymakers, Synergy 2024 endeavors to propel educational excellence to new heights. At the heart of Synergy 2024 lies the recognition of the symbiotic relationship between industry and academia. By fostering dialogue and collaboration between these two spheres, the conference aims to bridge the gap between theory and practice, ensuring that educational initiatives are not only relevant but also responsive to the evolving needs of society. Through a series of keynote speeches, panel discussions, and interactive workshops, participants will delve into a wide range of topics, from innovative teaching methodologies to the integration of emerging technologies in education.

One of the key objectives of Synergy 2024 is to explore how partnerships between industry and academia can drive positive change in education. By leveraging the resources, expertise, and networks of both sectors, participants will uncover new opportunities to enhance learning outcomes, foster student success, and promote lifelong learning. Moreover, the conference will delve into the role of education in addressing pressing global challenges, such as sustainability, digital literacy, and social equity, highlighting the importance of collaborative approaches in tackling these complex issues. Beyond its academic and professional dimensions, Synergy 2024 offers a unique opportunity for networking and cross-disciplinary exchange. Participants got the chance to connect with like-minded peers, share insights and experiences, and forge lasting partnerships that extend beyond the confines of the conference. By cultivating a vibrant community of educators, innovators, and thought leaders, Synergy 2024 aims to catalyze collective action towards building a brighter future for education, one characterized by synergy, collaboration, and excellence.

There has been a huge response to the call-for-papers for the Conference [SYNERGY 2024].

Around 41 numbers of researchers have participated. The researchers, academicians and industry persons of the leading organizations, institutes and industries from Nashik, Mumbai, Pune region and from Hyderabad, Telangana, Tamil Nadu, Philippines, Floriño O. Ibañez, DPA, China have participated. To quote few participants are from

1. Asstt. Manager, Reliance – Jio, Mumbai.Maharashtra- India.
2. Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamilnadu, India.
3. Master in Public Administration, Polytechnic University of the Philippines, Floriño O. Ibañez, DPA .
4. School of Mechatronics Engineering, Symbiosis Skills and Professional University
5. General Industrial Control Pvt Ltd, T-107, M.I.D.C., Bhosari, Pune 411026, India

A committee of 18 reviewers put in their efforts to review received papers. Total 46 Paper were presented on the day of the conference in hybrid mode. The observations and suggestions by the reviewers were helpful to the authors for further improvements in their papers.

The conference was approved by IETE Pune centre.

In order to motivate the participants, we have announced the 'Best Paper Award' for the papers from each category. By and large these technical papers added a true value in current research and development trends in the field of Communication, Computing and Electronics Engineering.

[SYNERGY 2024] **Schedule**

Day -1 : 15th April 2024

**Day1:**

On the day of the conference, i.e. on Monday 15<sup>th</sup> April 2024, the Inaugural Function was arranged in offline mode at 9 am. Prof. P.M.Bagul gave the introductory speech and greeted the dignitaries and the participants. The inaugural function was hosted by Prof.P.M.Bagul. The function was started with 'Saraswati Poojan' by singing Saraswati Vandana in the presence of the dignitaries.

Dr. M. M. Dhanvijay, Coodinator Synergy 2024 briefed about objectives of Synergy 2024 and also elaborated the significance of paper presentation and publication.

Dr. P. P. Mane, HoD E&TC Department highlighted about the department and presented the key points about the conference in her welcome address. Also encouraged the participants with her motivating speech.

Dr. M.P.Dale, Principal, MESWCOE highlighted the important activities of the college and gave her best wishes to SYNERGY-2024. She highlighted on the latest technologies and research areas. Also. Later the unveiling of the conference Souvenir was taken place.

Prof. Sachin Sanap , Trustee, M.E.Society highlighted about the college and gave her best wishes to SYNERGY-2024.

The audience was addressed by Chief Guest, Mr.Bharat Gite, CEO and Director, Taural India, He highlighted the benefits for paper presentation and noted about to bring all researchers together, will get a good platform, exchange of ideas, and knowledge and thoughts will be there and it's a need of the hour.

| DAY 1 | TIME |
|---|---|
| **Breakfast** | 8:00 AM- 8:45 AM |
| **INAUGURATION** | 9:00AM - 9.30AM |
| **Chief Guest & Key-Note Speaker**: Mr. Bharat Gite, CEO AND Director, Taural India. | 9:30 AM- 10:00 AM |
| **Panelist 1**: Mr. Vishwas Vaidya, Senior Consultant | 10:00 AM-10:30 AM |
| **Panelist 2**: Dr. Mrinal Bachute, Industry Liaison Officer, SIT, Lavale | |
| **Tea Break** | 10:30 AM-10:45 AM |
| TECH TALK -1 | 11:00 -11:30 AM |
| **SPEAKER** : Mr. Sanket Modak, Manager-Functional Safety, Magna Steyr | |
| **Panelist 1**: Dr. Aruna Sonawane, Head-Internship & Placement, Symbiosis Skill University | 11:30-12:00 PM |
| **Panelist 2** : Mr. Shekhar Malani, Startup Founder, Devise Electronics | |
| | |
| TECH TALK -2 | |
| **SPEAKER** : Mr. Mohammad Ali Sah, Head-PMC & RMI VECTOR INFORMATIKS | 12:00 PM -12:40 PM |
| **Panelist 1**: Dr. Ranjit Sadakale, Founder/Director BHAU, COEP | 12:40 PM -01:10 PM |
| **Panelist 2**: Mr. Milind Jape, Founder Director, SemINd Training and Consulting | |
| **LUNCH BREAK LUNCH BREAK LUNCH BREAK** | 1:10 PM-1:55 PM |
| TECH TALK -3 | |
| **SPEAKER** : Dr. R. Ganesan, CFO, ME Society, Pune | 2:00 PM -2:30 PM |
| **Panelist 1** : Mr. Girish Degaonkar, AGM at COEP's BHAU, Pune | 2:30 PM - 3:00 PM |
| **Panelist 2** : Mr. Sharad Bhanu, Vice President – COO, Deutsche Bank | |
| | |
| TECH TALK -4 | |
| **SPEAKER :** Mr. Sherin Mathew, CEO AI TECH NORTH, U.K | 3:05PM - 3:35PM |
| **Panelist 1**: Mr. Saurabh Shahane, Founder Machine Learning | 3:35PM - 4:15PM |
| **Panelist 2**: Mr. Kunal Khandelwal, Application Engineer, Mathworks | |
| | |
| **SPEAKER :** Mr. Amol Ranadive, Co-founder, eSiCompute India Pvt Ltd | 4.15 PM – 4:45 PM |
| **High Tea & Exit** | 4: 50 PM |
| END OF DAY 1 | END OF DAY 1 |

Dr. P.P. Mane, While Introducing About the Department

Mr.Bharat Gite & Mr.Vishwas Vaidya, while addressing the participants.

**Day -2 : 16<sup>th</sup> April 2024**

| SYNERGY 2024 Schedule | |
|---|---|
| **DAY 2** | TIME |
| **Breakfast** | 8:00 AM- 8:45 AM |
| **Inauguration of  International Conference** | |
| **Chief Guest** :  Mr. Abhijit Mulay, Dy. Director, ARAI, Pune | 9:00 AM- 09:30 AM |
| **Guest of Honor** : Dr. S. D. Shirbahadurkar, BoS-E&TC, SPPU | |
| **Key Note Speaker** : Mr. Vishwas Vaidya, Senior Consultant | |
| TECH TALK -1 | |
| **SPEAKER** : Mr. Vishwas Vaidya | 9.30 AM -10:00 AM |
| Paper 1: CNC Laser Engraver Using ATmega328p IC, Jaspal Singh Wasal, Tejasvi Jadhav, Atharv Kite, Puja. S. Deokate | 10:00 AM-10:15 AM |
| Paper 2 : NFT LAUNCHPAD, Mrunal Avchare, Yash Chauhan | 10:15 AM -10:30 AM |
| **Tea Break** | 10:30 AM-10:45 AM |
| TECH TALK -2 | |
| **SPEAKER** : Dr. Manoj Jain, Toronto Canada | 10:45 AM-11:15AM |
| Paper 1: Multi-Criteria Decision Making (MCDM) based material selection for Printed Circuit Board (PCB) utilized in robotics applications -Chaitanya Poredi ,Sagar Wankhede,Megha Patil | 11:15 AM- 11:30 AM |
| Paper 2: Comparative Study of Microstrip Patch Antenna with Different Shapes and its Application, Sairaj Pujari, Sakshi Bandal, Aditya Chaudhari | 11:30AM-11:45 AM |
| TECH TALK -3 | |
| **SPEAKER** :Mr. Vishal Deshpande, Principle Program Director, Erricson India | 11:45 AM -12:15PM |
| Paper 1: Advanced Fire Fighting Robot for fire handling in Critical Infrastructure, Vaibhav V. Kurbet,Savinay S. Kapale,Abhishek S. Chikane,Maneetkumar R. Dhanvijay | 12:15 PM- 12:30 PM |
| Paper 2: Design and Implementation of Vedic BCD Multiplier on Artix-7 FPGA Board, Fiza Yusuf Shaikh,Suraj Vijay Harale,Yasin Badshah Shaikh | 12:30 PM-12:45PM |
| **Lunch Break** | 1:00 PM-1:55 PM |
| TECH TALK -4 | |

| | |
|---|---|
| **SPEAKER** : Mr. Rushikesh Kulkarni, Head R&D,GIC | 2:00 PM - 2:30 PM |
| Paper 1: Cost & Resource Optimized HMI for Industrial Automation, Manoj Rewatkar, Rushikesh Kulkarni | 2:30 PM-2:45 PM |
| Paper 2: IOT Based Smart Inverter, Aastik Shinde, Atharva Mungase, Pradnya Raut | 2:45 PM-3:00 PM |
| TECH TALK -5 | |
| **SPEAKER**: Prof. Dr. Pastor Arguelles Jr. , Dean College of Computer Studies, University of Perpetual help, Phillipines Topic: Soft Computing: A software Engineering Process using Artificial Intelligence system | 3:05PM to 3:40PM |
| Paper 1: Design of Low Power and High-Speed Generic Reversible BCD Adder on FPGA, Christy Daniel ,Simrit Kaur Gill ,Neeraj Chhajed | 3:45 PM-4:00PM |
| Paper 2: Wirelessly Empower Your Arduino: The Magic of Over-the-Air Updates, Vinit Pradeep Gamre ,Yash Vilas Bari B. E,Vishakha Jagannath Sonar | 4:00 PM -4:15 PM |
| | |
| **Takeaway of Event** | |
| Dr. P. P. Mane | 4:15 PM- 4:30 PM |
| | |
| **Valedictory** | |
| Dr. M. M. Dhanvijay | 4:30PM-4:45PM |
| **High Tea & Exit** | 4:45 PM-5:00PM |

**Chief Guest** Mr. Abhijit Mulay, Dy. Director, ARAI, Pune He mentioned about to keep update with latest technologies and explore the latest advancements in technologies. Also mentioned the importance of the conference and how the research can be done with the use of the latest technologies.

The function was also graced by the Guest of honour Dr. S. D. Shirbahadurkar, BoS-E&TC, SPPU

Keynote session started at 9:30 am with Welcome of the guest speaker by Prof. P.M.Bagul.

| | |
|---|---|
| Speaker **Mr.Abhijit Mulay**, Dy. Director, ARAI, | Speaker **Dr. Manoj Jain** |



Participants

After keynote Best Paper Awards based on technical contents and presentation skills, are given to the presenters from each session.

The function was concluded with a vote of thanks by Dr. M.M.Dhanvijay.



**ACCET2023 Session-wise Best Paper**

| Session No. | Paper ID | Paper title | Author Name |
|---|---|---|---|
| Online Session-1 | 1. SY-ISC-2024-019 | "Emotional Exhaustion and Motivation of Frontline Service Providers in the Government Service Insurance System: Basis for Managerial Solutions Promoting Employees' Welfare" | Ma Rowena R. Enojo, Master in Public Administration, Polytechnic University of the Philippines, Floriño O. Ibañez, DPA |
| | 2. SY-ISC-2024-025 | "Cultural Heritage Preservation Through Technology: A Comprehensive Study" | Leo Bentley , Homaira Binte Halim, Department of Economics and Management, Chang'an University, Xi'an, China. |
| Online Session-2 | 1.SY-ISC-2024-024 | "LoRa Based System For Energy Efficient Building Lights" | Prof. Sunil Pansare, Sanket Ravindra Darekar, Riddhi Vivek Kulkarni, Leena Boudhkumar Khobragad, Modern Education Society'sWadia College of Engineering Pune, India |
| | 2.SY-ISC-2024-012/01 | "Line Following Autonomous Drone For Crop Monitoring" | Parvati Sunil Khokle,E & T.C MES Wadia College of Engineering Pune, India |

| | | | |
|---|---|---|---|
| Offline Session | 1. SY-ISC-2024 | Design of Low Power and High Speed Generic Reversible BCD Adder on FPGA | Chistey Danile,Neeraj Chajed,Simrit |
| | 2. SY-ISC-2024-026 | Wirelessly Empower Your Arduino: The Magic of Over-the-Air Updates | Yash Bari, Vishakha Sonar,Vinit Gamre |

Participants were given certificates for presenting their paper and 6 best paper awards and certificates were also given.

It gives us an immense pleasure to share with you that the papers of the conference SYNERGY 2024 will be considered for Publication in Journal after the peer review process.

**Outcome:**
- Students and research scholars were made aware about the recent trends in the field of electronics and electrical engineering.
- Students knew about the benefits of such conferences so that they may get an insight into the field of research which is an essential factor for the advancement of their career.

**Scope for Improvement:**
- Internationally renowned speakers may be called as resource persons.
- Paper presentation can be initiated through Web conferencing.
- More number of researchers & students may be given the opportunity to produce good-quality research papers.

**Best Paper Awards**


**SYNERGY-2024 Team**



[SYNERGY 2024] International Conference Group Photograph Day 1

[SYNERGY 2024] International Conference Group Photograph Day 2

Prepared By:
Prof.P.M.Bagul
Prof.P.S.Deokate

**Co-Coordinators**          **Coordinator**          **H.O.D**          **Principal**

Dr. K. S. Tiwari          Dr. M. M. Dhanvijay          Dr. P. P. Mane          Dr. M. P. Dale

Prof. Y. M. Ajgar