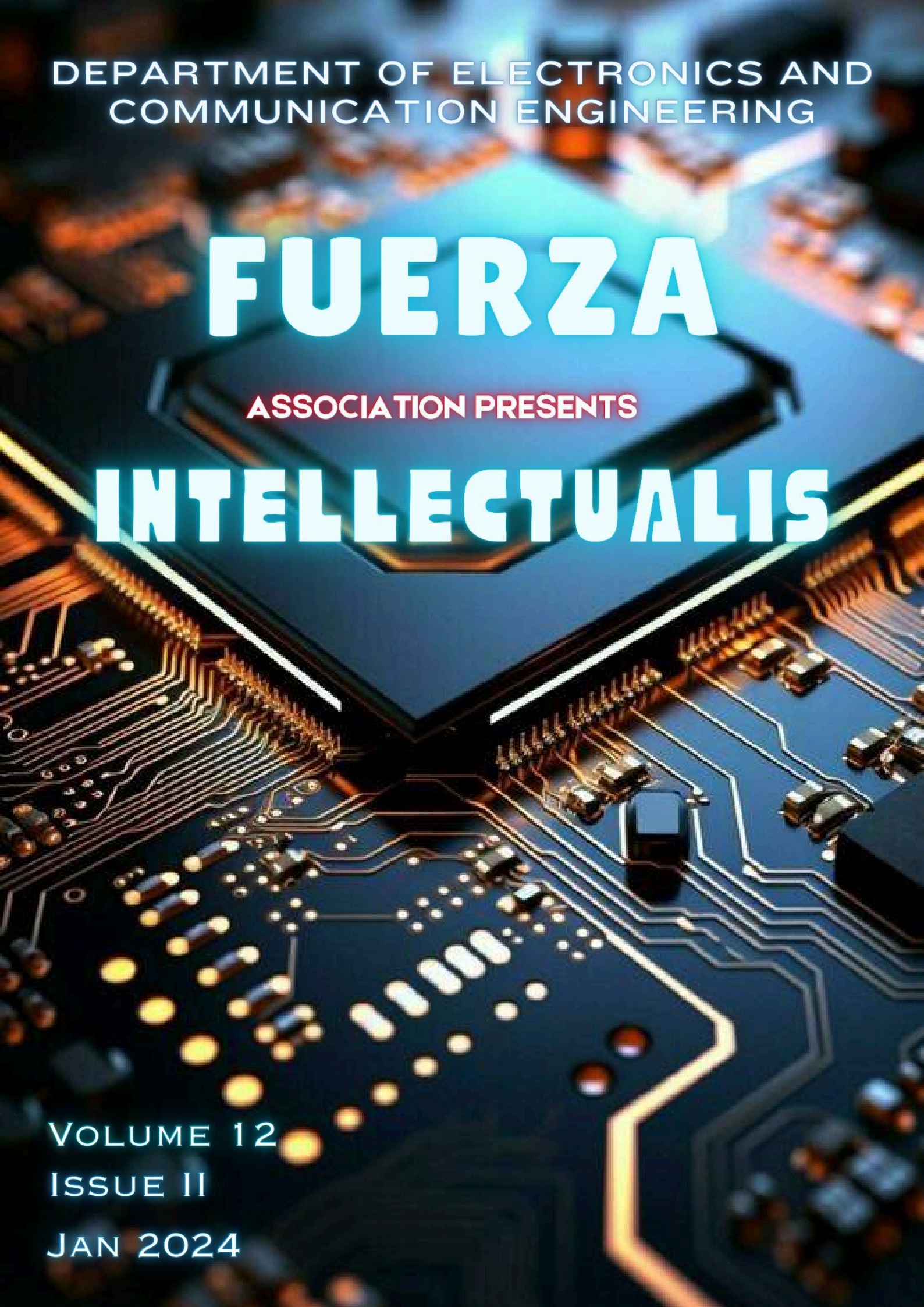

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
FUERZA
ASSOCIATION PRESENTS
INTELLECTUALIS
VOLUME 12
ISSUE II
JAN 2024

Index:

- Vision & Mission Of The Department
- PEOs & PSO
- Puzzles
- Technology Trends - 2023
- Riddles
- Faculty Publications
- Events Organized By The Department
- Students Achievements

Hello Readers!

With an immense pleasure, we bring to you yet another successful edition of our department Newsletter - Intellectualis (Volume 12, Issue 2). In this edition, we present to you a wealth of knowledge, interesting research and thoughtful discourse on all that is exciting in the world of ECE. Most of all, this edition is a foray into the numerous exciting activities undertaken by both faculty as well as the students of our department and we are honoured to document them and present them to you. We hope you enjoy reading Intellectualis as much as we did creating it!

Vision of the Department:

To produce globally competent Electronics and Communication Engineers with a commitment to serve the society.

Mission of the Department:

1.To establish a conducive learning environment to meet the demands of society.
2.To provide cutting-edge technical education to produce engineers with the highest calibre of professionalism.
3.To encourage creative thinking and support research to use technology to enhance people's quality of life.
4.To provide high quality, ethical engineers for the good of society.

Program Educational Objectives (PEOs):

Within three to five years, our graduates of Electronics and Communication Engineering program are expected to
1.Apply their engineering abilities to resolve technological issues facing industry.
2.Analyze real-world issues and design systems that are suited for delivering technically sound, financially viable, and socially acceptable answers.
3.Contribute towards entrepreneurship, exhibit professionalism, ethical attitude, communication skills, team work in their profession and adapt to current trends by engaging in lifelong learning.

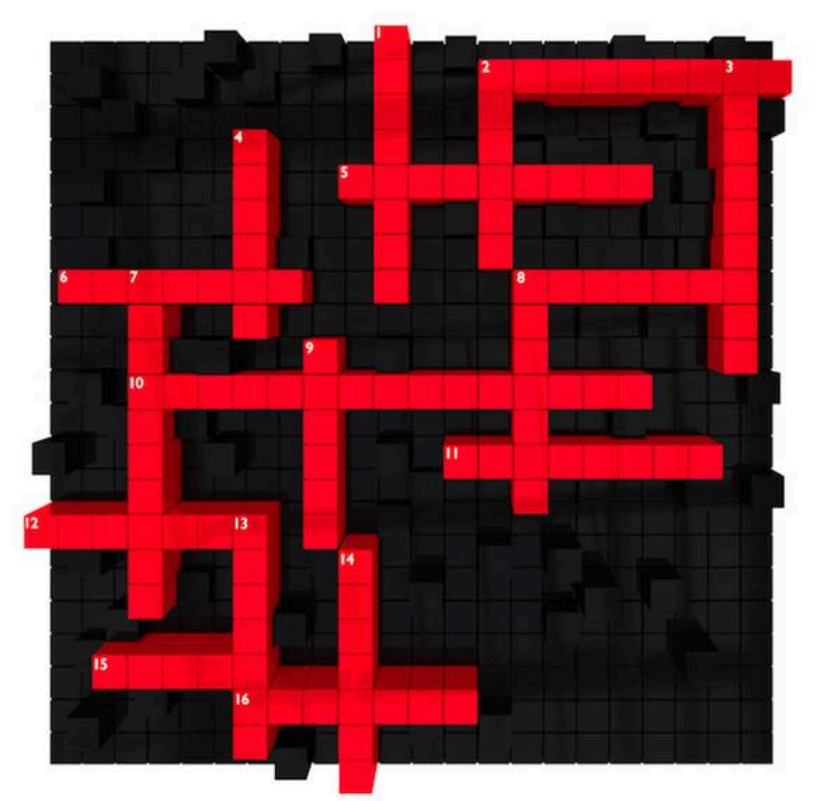
Program Specific Outcome (PSO):

Students of the Electronics and Communication Engineering Program

1.Shall have Potential to analyze, design, synthesize and provide technical solutions in the field of VLSI, Embedded Systems, Communication, Networking and Real Time Processing.
2.Shall exhibit leadership skills and pursue entrepreneurship and contribute in the field of Electronics and Communication Engineering.

Let's Solve this:

It's never easy to learn something new. A fun way to do this is by incorporating it into a game. This quiz is a crossword puzzle of some basic terms in electronics. Have fun!



Across:

2. A diagram that shows the electrical connections of the electronic components
5. Current is considered to be the movement of _____.
6. A voltage source that converts chemical energy to electrical energy
8. A flow of electric charge
10. A characteristic of a secondary cell
11. A material that is composed of a mixture of elements
12. The term used to designate electrical pressure
15. A short circuit will have a _____ current flow.
16. The part of an atom that has no electric charge.

Down:

1. A voltmeter is used in _____ with the circuit.
2. A device that opens or completes an electrical path
3. A material that opposes the movement of free electrons
4. One coulomb passing a point in one second
7. A resistive component that is designed to be temperature sensitive
8. A unit of charge that contains 6.25 × 10^18 electrons
9. An atom's atomic number is determined by its number of _____.
13. A substance that is found only in its pure form
14. It is used to measure current.

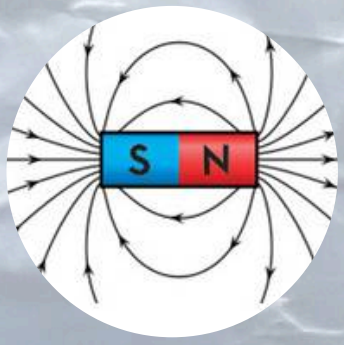
Technology Trends in 2023 - The Year of Digital Disruption

- VR and AR adoption will increase with Apple entering the market.
- NFTs will continue to be a key innovation in blockchain technology.
- Web 3 will move from proof-of- concept to alpha.
- Language models will change online content.
- Generative Al will drive the metaverse.
- Blockchains will become more sustainable, except for Bitcoin.
- Cybersecurity threats will cause trillions in damages.
- Sustainable technology will be a priority for brands and consumers.

Fact Fusion :

1

Two positive charges repel each other, as do two negative charges. On the other hand, opposite charges attract each other



Electric eels can produce strong electric shocks of around 500 volts for both self-defence and hunting.

2

3

The smallest object observed through a light microscope was 500 nanometers long.

Nokia 1100 is the world's best selling phone handset and the best selling consumer electronics device in the world.

4

RIDDLES:

1. The Silent Worker:

Click and clack without a voice,
Letters and numbers, I give you the choice.
What am I, your silent partner by choice?

2. The Keeper of Time:

In your pocket, I sit all day,
Counting steps, and showing the way.
What am I, that lights up with a sway?

3. The Eternal Library:

I hold worlds within a slim frame,
Pages unseen, yet knowledge is my game.
What am I, with no two contents the same?

4. The Invisible Link:

I connect you to worlds unseen,
Without me, where would you have been?
What am I, invisible yet keen?

5. The Portal to Virtuality:

Through my window, you can travel far,
Yet physically, you stay where you are.
What am I, your virtual car?

FACULTY PUBLICATIONS:

Dr.T.Saravanan:

1. "Smart Grid Management System Based on Machine Learning Algorithms for Efficient Energy Distribution", in International Conference on Smart Engineering for Renewable Energy Technologies (ICSERET-2023), Volume 387, 2023.
2. "Cloud-controlled Global Warming Prediction and Management System using Internet of Things", in International Conference on Edge Computing and Applications (ICECAA).

Dr.G.Durgadevi:

1. "Analysis of Land Surface Temperature Fluctuations Using Remote Sensing Data", in 3rd International Conference on Technological Advancements in Computational Sciences (ICTACS).
2. "Dingo Algorithm-Based Efficient Group Leader Selection in Wireless Network", in International Conference on Edge Computing and Applications (ICECAA).

Dr.R.Padmavathy:

"A Machine Learning-Based Energy optimization System For Electric Vehicles" in International Conference on Smart Engineering for Renewable Energy Technologies (ICSERET-2023).

Dr.M.Jasmin:

1. "Intelligent Control System for Wind Turbine Farms Using IoT and Machine Learning", in International Conference on Smart Engineering for Renewable Energy Technologies (ICSERET-2023).
2. "Statistical Analysis of Ecological Mathematical Model Based on Data Warehouse" in International Conference on Smart Technologies For Smart Nation (SmartTechCon)

Dr.V.Mangaiyarkarasi:

"ESP-8266-Based Indoor Localization System", in 2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS).

Ms.V.Hemamalini:

"Study on Influence of Seasonal Freeze-thaw Environment on Crack Evolution of Expansive Soil in Subgrade Based on Genetic Algorithm", in 2023 Second International Conference On Smart Technologies For Smart Nation (SmartTechCon).

Ms.G.Sheeba:

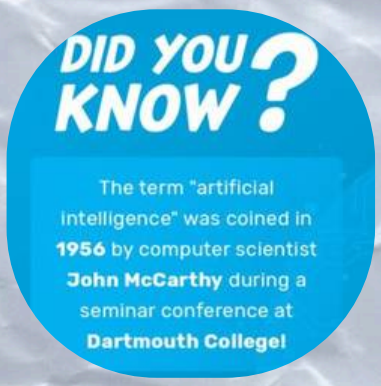
"Design and Implementation of Ideological and Political Pedagogy System Based on Service-Oriented Architecture" in International Conference on Smart Technologies For Smart Nation (SmartTechCon).

Events Organized by the Department

1. On 9 October, 2023, Mr.R.Prabu, Managing Director of Re-Tech Solutions Pvt. Ltd., Chennai, delivered a guest lecture on 'Advances in Optical Communication and Dispersion Calculation' for our departments.

2. On 13 October, 2023, our department hosted a seminar led by Mr. P. Srinath, Project Manager at VeeEee Technologies Solutions (P) Ltd., Chennai, on the topic 'Enhancing LAN Uses Cryptography.

3. On 29 September, 2023, Mr. G. Ramganesh, Managing Director of Sriram Electro Tech, conducted a seminar on 'Smart Antenna for Mobile Communication' for our department.



4. From 31 October, 2023, to 1 November, 2023, Mr. Jonathan Rajiv, Project Associate, Intel Corporation, Bengaluru led a workshop on 'Virtual E-Lab Tools' for our department.

5. A faculty development program on digital communication was organized by the department from 7/8/2023 to 14/8/2023.

6. The Department arranged an Industrial visit for third-year and second-year students to Pantech Pro Labs, Chennai, on 17 October, 2023.

7. A Value added course on “M2M Devices” was organized by the Department to develop job ready skills for the students.The course was led by Ohmtronixs Technologies, Chennai.

8. A three days Workshop on “Economic Empowerment through computer aided training for women in Self Help Group” of Vengaivasal village.Our Department faculties Ms.V.Hemamalini , Mr.P.Parthiban and Ms.G.Vijayakumari acted as Internal resource person

Students Achievements

1. Our Students took part in KAVACH'23 Hackathon, held from 7 August to 9 August, 2023. This event took place at the Nodal Center, GL Bajaj Institute of Technology and Management, Greater Noida, New Delhi, gathering innovative minds and Tech enthusiasts from across the region. The central challenge of the Hackathon involved developing a solution for detecting the usage of LoRa (Long Range) technology.

2. D. Shan, III-ECE won first prize at M.G.R Educational and Research Institute for his project "Patient Care Device", which focuses on enhancing patient care through innovative healthcare technology. This achievement highlights his project's potential impact on improving patient safety and care quality.

3. Our Students M. Krishnamoorthy from IV-ECE, D. Thamizharasi from III-ECE, M. Dhanush from II-ECE, and U. Hemalatha from I-ECE participated in the Anna University Zonal Trials for Karate held at Coimbatore in November 2023, showcasing their skills and dedication in Martial arts.

4. M.Krishna Murthi of Final year ECE acted as a Judge at NKFI 4th National Karate Tournament held on 22/9/2023 at Hyderabad.

5. Our Department students have won 4th place at Zone 4 Kho-Kho tournament held at Anna University, Chennai.

6. S.Balaji of third year ECE has got Second place in Kamalanaban table tennis club tournament held on 2 September 2023. Also had received won 4th place in Table Tennis tournament held at Sairam Engineering College on 2 November 2023.

7. D.Thamizharasi of third year ECE received the best volunteer award in NSS camp held on 16/12/2023.

8. S.Pravina of second year ECE had received Second place in poster competition in Intra-Institution Poster competition held on 27/11/2023.

9. Our Department students participated in the coding contest and Elevate ED - skill boost contest organized by CSI Student Branch of our college held on 5/9/2023 and 23/9/2023 respectively.

10. ISTE Professional Society membership students of our Department Quiz program on Environmental sustainability Held on 7/10/2023. Also, they attended a workshop on Overview of Electrical system in large Industry.

11. J.Karthikeyan, P.Karthik, M.Kartheeswari, T.Madhumitha of III-Year ECE participated in ELITECCOM 2023 - National Level Symposium organized by IETE, Chennai on 21/9/2023.

12. Around 20 students of Third year ECE completed an online courses on Basics of Remote Sensing , Geographical Information System and Global Navigation Satellite System , Geospatial technology for climate smart agriculture conducted by Department of Space , ISRO and IIRS, Dehradun.

अंतरिक्ष विभाग /DEPARTMENT OF SPACE
भारत सरकार/GOVERNMENT OF INDIA
भारतीय अंतरिक्ष अनुसंधान संगठन /INDIAN SPACE RESEARCH ORGANISATION
भारतीय सुदूर संवेदन संस्थान, देहरादून / INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN

नामांकन सं. / Enrolment No.: 20231222136239

CERTIFICATE OF COMPLETION
ONLINE COURSE

यह प्रमाणपत्र
MS. THAMIZHARASI D
को " रिमोट सेंसिंग, भौगोलिक सूचना प्रणाली और ग्लोबल नेविगेशन सैटेलाइट सिस्टम के मूलभूत सिद्धांत "
में ऑनलाईन पाठ्यक्रम पूर्ण करने पर प्रदान किया जाता है।
इस ऑनलाइन पाठ्यक्रम का आयोजन 28 अगस्त, 2023 से 17 नवंबर, 2023 (कुल पाठ्यक्रम की अवधि = 79 घंटे 30 मिनट) के दौरान किया गया।
(संबन्धित आई.आई.आर.एस नोडल केंद्र- न्यू प्रिंस श्री भवानी कॉलेज ऑफ इंजीनियरिंग एंड टेक्नोलॉजी)

THIS CERTIFICATE IS
AWARDED TO
MS. THAMIZHARASI D
ON COMPLETION OF THE ONLINE COURSE ON
"Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System"
THIS ONLINE COURSE WAS CONDUCTED DURING 28-08-2023 to 17-11-2023 (Total course duration = 79 hrs & 30 min).
(Concerned IIRS Nodal Centre- NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY)

This course consists of 5 modules- 1) Remote Sensing and Digital Image Analysis; 2) Overview of Global Navigation Satellite System; 3) Overview of Geographical Information System; 4) Overview of Geocomputation and Geo-web services; and 5) RS & GIS Applications in Natural Resource Management.

Online Exam Grade: B
Attendance: 96 %

Date: 04-01-2024
Place: Dehradun
समन्वयक, विश्वविद्यालय/संस्थान
Coordinator, University/ Institution
निदेशक/ Director
आई.आई.आर.एस, देहरादून/ IIRS, Dehradun
UID- 2d134c383ee4f421b2353e41d1598c81 .This Certificate can be validated using URL- https://certificate.iirs.gov.in
*>80% -(A+), 70-80% -(A), 60-70% -(B+), 40-60% -(B)

अंतरिक्ष विभाग /DEPARTMENT OF SPACE
भारत सरकार/GOVERNMENT OF INDIA
भारतीय अंतरिक्ष अनुसंधान संगठन /INDIAN SPACE RESEARCH ORGANISATION
भारतीय सुदूर संवेदन संस्थान, देहरादून / INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN

नामांकन सं. / Enrolment No.: 20231191998600

CERTIFICATE OF PARTICIPATION IN
ONLINE COURSE

यह प्रमाणपत्र
MS. THAMIZHARASI D
को " जलवायु-स्मार्ट कृषि के लिए भू-स्थानिक प्रौद्योगिकी "
में ऑनलाईन पाठ्यक्रम में भाग लेने पर प्रदान किया जाता है।
इस ऑनलाइन पाठ्यक्रम का आयोजन 10 जुलाई, 2023 से 14 जुलाई, 2023 (कुल पाठ्यक्रम की अवधि = 7 घंटे 30 मिनट) के दौरान किया गया।
(संबन्धित आई.आई.आर.एस नोडल केंद्र- न्यू प्रिंस श्री भवानी कॉलेज ऑफ इंजीनियरिंग और प्रौद्योगिकी, चेन्नई)

THIS CERTIFICATE IS
AWARDED TO
MS. THAMIZHARASI D
ON HAVING PARTICIPATED IN THE ONLINE COURSE ON
"Geospatial Technology for Climate Smart Agriculture"
THIS ONLINE COURSE WAS CONDUCTED DURING 10-07-2023 to 14-07-2023 (Total course duration was = 7 hours and 30 minutes).
(Concerned IIRS Nodal Centre- NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY, CHENNAI)

Date: 02-08-2023
Place: Dehradun
समन्वयक, विश्वविद्यालय/संस्थान
Coordinator, University/ Institution
निदेशक/ Director
आई.आई.आर.एस, देहरादून/ IIRS, Dehradun
UID- 6cfaf86aedf752c3a39b04ed7f1732b9 .This Certificate can be validated using URL- https://certificate.iirs.gov.in

13.J.Karthikeyan,P.Karthik, M.Kartheeswari,T.Madhumitha of III-ECE, participated in ELITECCOM 2023 - 2nd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication And Computers conducted by The Institution of Electronics and Telecommunication Engineers, Chennai Centre on 21/9/23.

THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS
CHENNAI CENTRE
37, Conran Smith Road, Gopalapuram, Chennai 600086

ELITECCOM 2023
2nd NATIONAL LEVEL SYMPOSIUM ON RECENT TRENDS IN ELECTRICAL, INFORMATION & TECHNOLOGY, ELECTRONICS & COMMUNICATION AND COMPUTERS

CERTIFICATE OF PARTICIPATION

This is to certify that ***J KARTHIKEYAN*** of **NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY** *presented a paper* ***REVOLUTIONIZING AGRICULTURE*** *in the Second National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication and Computers organized by* ***IETE Chennai Centre*** *during* ***21, September 2023.***

Dr. D.VIJENDRA BABU
Honorary Secretary

Dr. V. THULASI BAI
Chairperson

IETECC/23-24/04/057

THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS
CHENNAI CENTRE
37, Conran Smith Road, Gopalapuram, Chennai 600086

ELITECCOM 2023
2nd NATIONAL LEVEL SYMPOSIUM ON RECENT TRENDS IN ELECTRICAL, INFORMATION & TECHNOLOGY, ELECTRONICS & COMMUNICATION AND COMPUTERS

CERTIFICATE OF PARTICIPATION

This is to certify that ***KARTHIK P*** of **NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY** *presented a paper* ***REVOLUTIONIZING AGRICULTURE*** *in the Second National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication and Computers organized by* ***IETE Chennai Centre*** *during* ***21, September 2023.***

Dr. D.VIJENDRA BABU
Honorary Secretary

Dr. V. THULASI BAI
Chairperson

IETECC/23-24/04/056

Cross Word Answer:

Sudoku Craze: Sharpen Your Mind, One Grid at a Time!

Sudoku is a logic-based number puzzle where players fill a 9x9 grid so that each row, column, and 3x3 subgrid contains all digits from 1 to 9 without repetition. It's a popular brain-teasing game that challenges problem-solving and critical thinking skills.

5		3					7	
4					7		9	3
9			2				1	
	4			8		9		
			6	5			8	
3					1			
		5			9			
	9			2			3	
	2		3	1				

Riddle Answers:

1. Keyboard
2. Smart Phone
3. E-Reader
4. Wi-Fi
5. Computer

Sudoku Answer:

5	8	3	1	9	4	2	7	6
4	1	2	5	6	7	8	9	3
9	6	7	2	3	8	4	1	5
2	4	6	7	8	3	9	5	1
1	7	9	6	5	2	3	8	4
3	5	8	9	4	1	6	2	7
6	3	5	8	7	9	1	4	2
7	9	1	4	2	6	5	3	8
8	2	4	3	1	5	7	6	9

PATRON:

MS. V. HEMAMALINI
Assistant Professor/ECE

EDITORS:

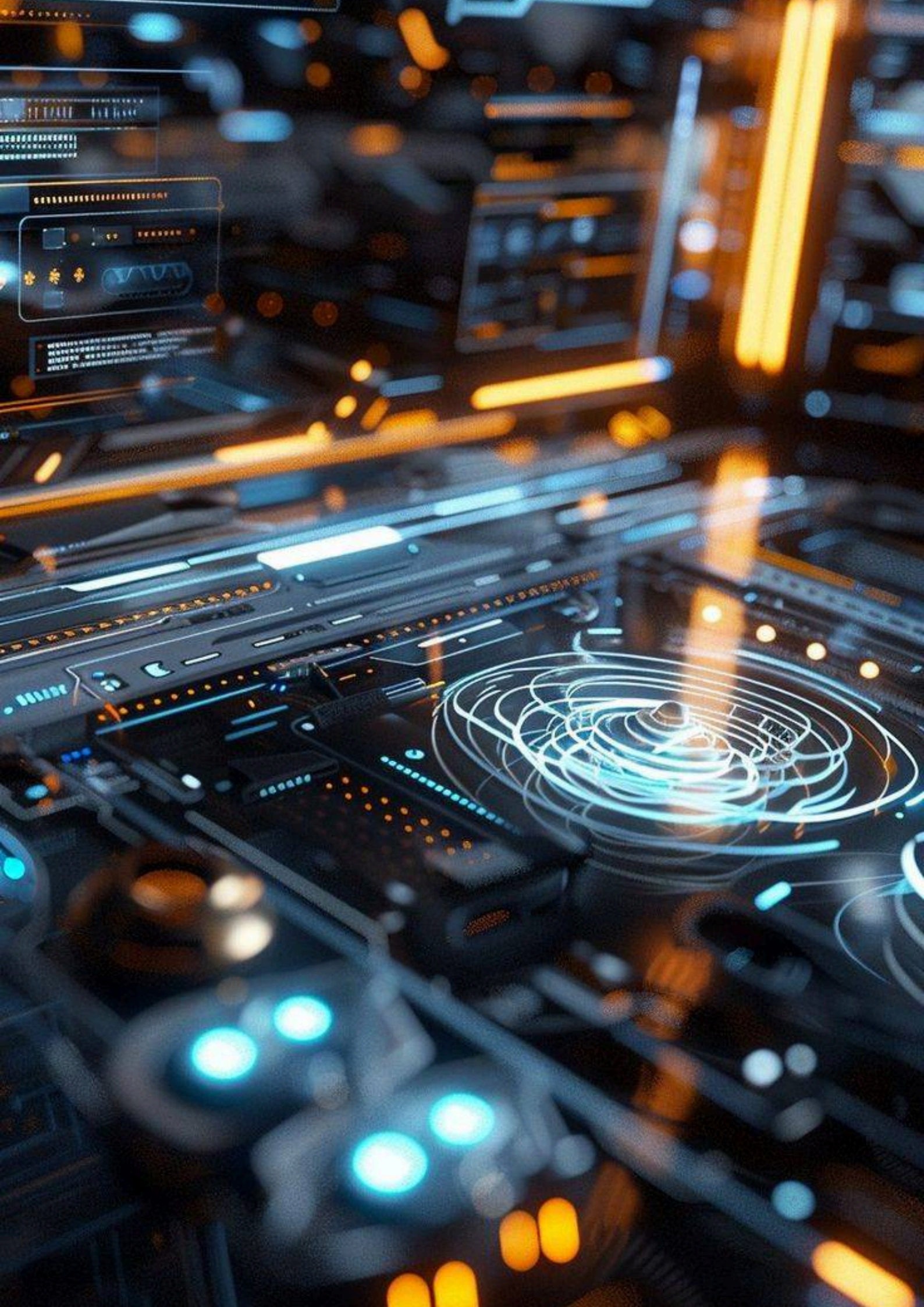
V.S.JENISHA - IV ECE
M.KRISHNA MURTHI - IV ECE
J.KARTHIKEYAN - III ECE

SUB - EDITORS:

K.SALINI - II ECE
S.PRAVINA - II ECE

CONTENT CREATORS:

J.JAGADESH - III ECE
K.SANJAY - III ECE

DESIGNERS:

K .VIGNESH - III ECE
J.BHAVANATH - III ECE