Vel Tech
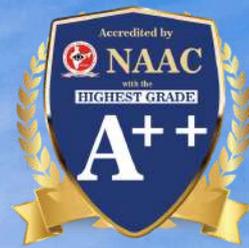## Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

Accredited by **NAAC** with the **HIGHEST GRADE** **A++**

SCHOOL OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Magazine

ENSIGHTBYTES

2022-2023

VISION AND MISSION OF THE DEPARTMENT

VISION

To produce intellectual graduates who could contribute significantly in the analysis, design, development, operation and maintenance of complex software systems for meeting the ever-changing requirements of service systems and to compete globally towards professional excellence.

MISSION

M1: Design curricula for imparting training in adapting newer computing methods and technologies for providing effective and efficient solutions to the existing / new problems.

M2: Emphasizing in-depth knowledge of the subjects by employing Information and Communication Technology (ICT) based pedagogy methods.

M3: Creating a conducive research environment for making technological innovations by the faculty and students.

M4: Providing leadership skills and professional ethics thereby making a prolific career in academics and industry.

PROGRAM EDUCATIONAL OBJECTIVES

PEO1: Formulate, solve and analyze Computer Science and Engineering problems using necessary mathematical, Scientific and engineering fundamentals.

PEO2: Demonstrate the impact of cutting-edge technologies to accomplish social and professional responsibilities.

PEO3: Demonstrate critical thinking, communication, teamwork, leadership skills and ethical behavior necessary to function productively and professionally.

PEO4: Pursue higher education at reputed institution in India and abroad, work in product development companies and engage in lifelong learning.

PROGRAM OUTCOMES (POs)

PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design / Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-Long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PSO1: Mathematical Concepts: Equipped with the knowledge to infer the mathematical models for problem solving using data structures, design and analysis of algorithms

PSO2: Software Development: Exhibit proficiency to analyze, design and develop applications in various domains to provide solutions using innovative ideas.

PSO3: Transferring Skills: Demonstrate the ability to provide solutions for real world problems through acquaintance and hands-on training.

MAGAZINE

The Department of Computer Science and Engineering (CSE), established in 1997, has evolved into a dynamic and thriving academic community with a total strength of 3,278 students. The Department is equipped with state-of-the-art laboratories and supported by a highly qualified and dedicated faculty team comprising 20 Professors, 37 Associate Professors, and 140 Assistant Professors.

Students actively engage in professional bodies such as CSI, IEEE-CS, IEEE-PCS, IEEE-WIE, ACM, and ISTE, which significantly enhance their technical expertise and professional competencies. The Department regularly organizes technical events, workshops, seminars, hackathons, and coding competitions. Its students consistently excel in both academic and extracurricular domains, earning accolades at regional, national, and international levels.

The Department maintains an outstanding placement record, with students recruited by leading multinational companies including Amazon, Cisco, Accenture, Capgemini, Virtusa, Wipro, ZOHO, KAAR Technologies, TCS, Microsoft, Infosys, Cognizant, HP, and Verizon. Faculty members and students actively contribute to high-quality research publications in reputed journals and conferences, thereby strengthening the Department's research culture.

For further details, visit www.veltech.edu.in/cse.

INSTITUTION LEADERSHIPS

Col. Prof. Vel. Dr. R. Rangarajan
B.E. (Elec), B.E. (Mech), M.S. (Auto), D.Sc.,
Founder President & Chancellor

Dr. Sagunthala Rangarajan
MBBS
Foundress President

Mrs. Rangarajan Mahalakshmi Kishore
B.Tech, M.Tech, MBA(UK),
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Dr.N. Malarvizhi
Professor/CSE

STUDENT EDITORS

BODDU SWAPNAMADHURI
VTU23242

HONEYSH V
VTU25423

SRI DHANAM M K
VTU26284

Participation and Prize Winners

S.No	Event Name	Participated	Prize Winners
1	Hackathon	152	12
2	Idea Contest	96	16
3	Quiz	252	10
4	Coding Competitions	350	38
5	Tech Fest	402	9
6	Paper	50	0
7	Non-Technical	71	1
	Total	1482	86

STUDENT SPECIAL ACHIEVEMENTS Jan 2023- July 2023

Dinesh Aitham Has awarded
Rs.20,000 in Ur-Hackathon

Date of Event:
4.11.2023-8.11.2023

Kavya VTU 20414

For **award of Rs.2034** for
appreciation of writing a book

Pratyush De VTU 12070 Dipta Talukder VTU
28596 **Awarded Rs.1 lakh** grant
CHANAKYA Fellowship Program of IITI
DRISHTI CPS Foundation Foundation under
NM-ICPS scheme for the project Faculty
Mentor:Dr. N. Malarvizhli,-Professor-CSE

VTU-16970 ANIKET KUMAR VTU 17178-
MANISH KUMAR VTU17060-UTKARSH
Rewared and received **cash prize of
Rs.15,000** in Texus Hackatoge Organized
by:SRM-Ramapuram Faculty
Mentor:Dr.M.Kavitha-Professor/CSE

Artificial Intelligence: The Future of Smart Technology

Technical Event

This technical event aims to provide students with an opportunity to explore the fundamentals and real-world applications of Artificial Intelligence. Participants will gain insights into concepts such as machine learning, deep learning, natural language processing, and computer vision. The event encourages students to think innovatively and develop AI-based solutions to real-life challenges

**VALETI VINEELA
VTU22519**

Through technical presentations, project demonstrations, and interactive discussions, students will refine their analytical thinking, problem-solving abilities, and technical expertise in AI technologies. This event also provides a platform for young innovators to present their ideas and explore how Artificial Intelligence can be harnessed to create intelligent systems for the future. Overall, the event fosters creativity, research interest, and technological awareness among students in the fast-evolving realm of Artificial Intelligence.

PLACEMENT RECORD — JULY TO DECEMBER 2022

Company	Students	LPA
Capgmini	121	4.25
CGI	17	3.93
Cisco	12	4.70
Cognizant	120	6.75
Comcast India	6	8.25
Concentrix	26	3.00
Congruent Solutions	3	2.50
Daimler India	1	7.50
DXC	10	4.00
eGoverance	2	7.00
Embitel Technologies	9	5.00
Epikindifi	1	6.00
Evertz India	1	5.50
IBM Codeknack	1	4.50
Idea Breed	1	4.50
IDP	5	8.00
Ignitarium Technology	1	5.00
Infosys (SE)	9	3.60
Jio Platforms	5	5.00
JSW Group	1	9.50
Accenture	99	4.50
Acies Global	2	5.00
ADP	5	8.80
Amadeus Labs	3	11.70
Amadeus Labs (Intern)	4	3.60
Aptean	1	5.50
Atos Global	2	3.10
Automotive Robotics	7	3.00
Blue Binaries	3	3.75
BNP Paribas	11	3.00

Machine Learning: Teaching Computers to Learn

CHUKKA BRAHMAJI VTU27001

Machine Learning is a subset of Artificial Intelligence that enables computers to learn from data without direct programming. Its main focus is on creating algorithms that can recognize patterns and forecast outcomes. This technology is commonly applied in various fields, including:

- Recommendation systems
- Fraud detection
- Speech recognition

Companies such as online shopping platforms and streaming services utilize machine learning to recommend products and content to users.

- This technology continually enhances itself as it analyzes more data over time.
- For students, studying machine learning fosters analytical thinking and problem-solving skills.
- It also paves the way for career opportunities in **data analysis** and intelligent system development**.
- Machine learning is crucial for creating smart technologies.

As the volume of data continues to expand, the significance of machine learning will only grow in the future.

PLACEMENT RECORD — JANUARY TO JUNE 2023

Company	Students	LPA
Accenture	99	4.50
IDP	5	8.00
Acies Global	2	5.00
Ignitarium Technology	1	5.00
ADP	5	8.80
Infosys (SE)	9	3.60
Amadeus Labs	3	11.77
Jio Platforms	5	5.00
Amadeus Labs (Intern.)	4	3.60
JSW Group	1	9.50
Aptean	1	5.50
Atos Global	2	3.10
KPMG India	4	5.00
Automotive Robotics	7	3.00
LTI	2	5.00
Blue Binaries	3	3.75
Movidu Technologies	7	7.00
BNP Paribas	11	3.50
Mu Sigma	7	5.00
Capgemini	121	4.25
Multicoreware	2	7.20
CGI	17	3.93
MyCaptain	1	5.00
Cisco	1	24.70
Nielsen IQ	3	11.50

PLACEMENT RECORD — JANUARY TO JUNE 2023

Company	Students	LPA
Cognizant	120	6.75
Odessa Technologies	3	7.50
Comcast India	6	8.25
Open Text	32	9.00
Concentrix	26	3.00
Qube Cinema Tech.	1	10.00
Congruent Solutions	3	2.50
Sasken Technologies	6	5.00
Daimler India	1	7.50
Sharpsell	1	8.00
DXC	10	4.00
Sirius	1	7.00
eGoverance	2	7.00
TCS Digital	8	7.00
Embitel Technologies	9	5.00
Tejas Network	1	10.00
Epikindifi	1	6.00
Telestratum Networks	3	6.00
Evertz India	1	5.50
Virtusa	33	5.50
IBM Codeknack	1	4.50
Yubi	1	15.00
Idea Breed	1	4.50
Zoho	5	8.40

Data Science: Turning Data into Knowledge

Data Science is an interdisciplinary domain dedicated to uncovering valuable insights from extensive data sets. It integrates statistics, mathematics, and programming to analyze intricate datasets. Organizations leverage data science to:

- Comprehend customer behavior
- Enhance decision-making processes
- Anticipate future trends

KATASANI VIJAYA LAKSHMI VTU22986

Data science is widely used in industries such as healthcare, finance, marketing, and social media. By analyzing data, companies can make better strategies and improve their services. Students who learn data science gain skills in data analysis, visualization, and problem-solving. These skills are highly valuable in today's digital economy. Data science helps transform raw data into useful information that supports innovation. As data continues to grow rapidly, data science will remain one of the most important technological fields.

Achievements I
Name of the Student:
- **Aniket Kumar**
- **Manish Kumar**
- **Utkarsh**

Date: 15-04-2023 to 16-04-2023
Event Name : Texus Hackatoge
Organized by: SRM Ramapuram,Chennai
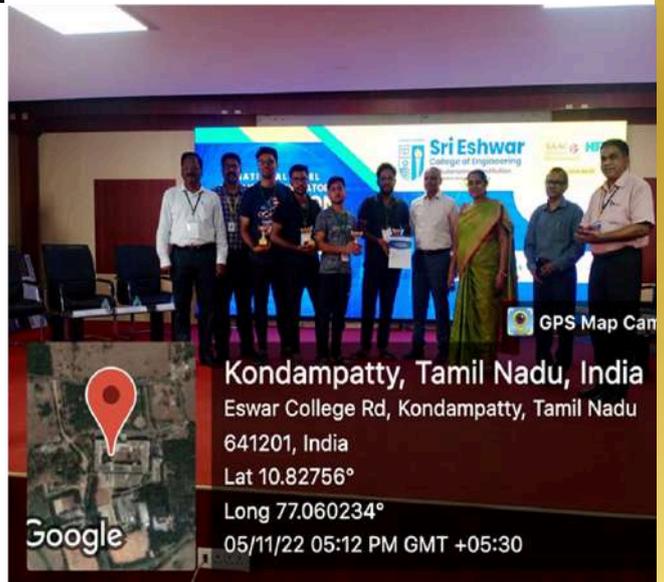**Cash Prize: Second Prize**
Cash Prize of Rs.15000

Achievement 2:
Name of the Student:
- **Raghav Rajvanshi**
- **Deepanshu Singh**
- **Animesh Das**
- **Ankit Kumar**

Date of Event: 04-11-2022 to 05-11-2022
Event Name:Inelligent Innovation Hackathon
Organized by: Sri Eswar College of Engineering
Cash Prize:Second Prize

Achievement 3:
Name of the Student:
- **Rajneesh Pandey**
- **Sai Srinivas vara Prasad**
- **Saharsh Gupta**
- **Devasis Panda**

Date of Event: 24th to 26th Mar' 23
Event Name: Cognizance 23
Organized by: IIT Roorkee
Cash Prize: Third Prize

Short Story Writing: Creativity Through Storytelling

Short Story Writing: An Artistic Expression Crafting short stories is an art form that enables writers to convey ideas through captivating and significant narratives. A compelling story features intriguing characters, a robust plot, and a meaningful message.

KATASANI VIJAYA LAKSHMI VTU22986

Short stories can draw inspiration from imagination, personal experiences, or social issues. Crafting these narratives aids students in enhancing their creativity, vocabulary, and communication abilities. Additionally, it fosters critical thinking and imaginative skills. Many renowned authors commenced their journeys through short story writing, which can offer valuable lessons to readers. For students, storytelling serves as a delightful means of creative expression, while also honing their capacity to convey ideas effectively.

RESEARCH / PATENT / BOOK & BOOK CHAPTER PUBLICATIONS July 2022-Dec 2022

This period reflects the department's commitment to academic excellence and innovative research, with impactful contributions in the areas of machine learning, IoT, healthcare, and smart city applications.

S.no	Title	Authors	Journal / Volume / Issue	Date
1	An Effective and Secure Mechanism for Phishing Attacks Using a Machine Learning Approach	Mohamed G, Visumathi J, Mahdal M, Anand J, Elangovan M	Multiresolution and Information Processes – Vol. 10(7)	Jul 2022
2	A crop yield prediction model based on an improved ANN and yield monitoring using a blockchain technique	M. Sumathi, M. Rajkamal, S. P. Raja, M. Venkatachalapathy, N. Vijayaraj	Int. Journal of Wavelets, Multiresolution and Information Processing, Vol. 20(6)	Aug 2022
3	Analysis of Skin Cancer and Patient Healthcare Using Data Mining Techniques	N. Arivazhagan et al.	*Cognitive Systems Volume 2022*	Sep 2022
4	Energy Aware Seagull Optimization-Based Unequal Clustering Technique in WSN Communication	D. Anuradha, Srinivasan R, Anil Kumar T. Ch, Banu J.F., Pundir A.K.S, Babu D.V	Cyber Security Vol. 32(3), pp. 1325–1341	Sep 2022
5	Human-Centered Applications in Sustainable Smart City Development: A Qualitative Survey	Xu Wei, Mengyu Ruan, Thanjai Vadivel, J. Alfred Daniel	Supplementary Issue 4 – Cognitive Systems for Cyber Security in the Digital Era	Sep 2022

Drawing: Creativity Through Visual Art

Drawing serves as a powerful medium for visual expression, enabling individuals to convey their ideas through sketches and illustrations. Artists utilize lines, shapes, and colors to craft meaningful images. Additionally, drawing enhances observation skills and nurtures creativity.

RATHIKINDI PAVAN KUMAR VTU22252

Many students utilize drawing as a means to convey their imagination and emotions. This practice fosters artistic thinking and encourages innovation. Drawings can depict themes such as nature, culture, technology, or social concepts. Through their artwork, students are able to share their unique perspectives with others. Additionally, drawing aids in cultivating patience and concentration. It is a delightful activity that enhances creativity and nurtures artistic talent.

Project Title: The Relentless and Realtime Smart Worker Suit and App

Objective: To design and develop a smart helmet and clothing system for mining industry applications.

Date: 25–29 August 2022

College: KIET Group of Institutions

Place: Delhi

Result: Finalist

Team Members:

Deepanshu Singh (VTUL2311), Animesh Das (VTUL6808), Ankit Kumar (VTUL1992), Nitin Das (VTU16807), Shay Rajvanshi (VTUL2050), Anubothu Lavanya (VTU14461)

STUDENT SPECIAL ACHIEVEMENTS JAN 2023 - JULY 2023

Major Events Conducted for Students for the Academic Year 2022–2023 rewarded with Cash Prizes and Merit Certificates

Event Details:

S.No	Date of Event	Event Name	Faculty Coordinator	Total Number of Students
1	28.10.2022	Codethon-22	Mrs.K.Prema	46
2	29.10.2022	Idea Contest-22	Mrs.P.Arvibraka	64
3	31.1.2023	Codethon-23	Mrs.P.Arvibraka	41
4	27.03.2023	Coding Champions-23	Mrs.P.Arvibraka	51
5	29.03.2023	Idea Contest-23	Mrs.K.Prema	46
6	31.03.2023	Prakalpaz-23	Mr.Kishore Kumar	29

Cyber Security: Protecting the Digital World

Cyber Security is dedicated to safeguarding computer systems, networks, and data from cyber threats and unauthorized access. As the reliance on the internet and digital technologies continues to grow, the frequency of cyber attacks has also risen. Cyber criminals frequently target sensitive information, including passwords, financial details, and personal data. To combat these threats, cyber security professionals focus on preventing attacks by creating secure systems and actively monitoring networks.

SHAIK AISHA SIDDIKA VTU23479

The Importance of Cybersecurity

Techniques like encryption, firewalls, and ethical hacking are crucial for safeguarding digital information. Students studying cybersecurity acquire valuable insights into online safety and secure computing practices. This field presents numerous career opportunities in both government and private sectors. Cybersecurity is essential for maintaining trust in digital systems, as protecting information is vital in our interconnected world.

TECHNICAL EVENTS FOR STUDENTS

1. **26 July 2022** – Webinar on "Lean Start-up & Minimum Viable Product/Business".
2. **26 September 2022** – One-Day Event on "Hands-on Training in Architecting with AWS Services".
3. **24 September 2022** – Webinar on "Lean Start-up & Minimum Viable Product/Business" (Second Session).
4. **24 September 2022** – Wellness Programme on "Wholistic Wellness Series to Handle Physical and Mental Stress".
5. **8 October 2022** – Hands-on Training on "Spring Boot & Hibernate".
6. **31 October 2022** – Webinar on "Impact of AI in the 21st Century".
7. **17 October 2022** – Orientation Programme on "Transition Camp – Enabling the Ability to Derive Pseudo Code before Coding".
8. **14 October 2022** – One-Day Workshop on "Low Code Development – Hands-on Training with Mendix Platform".
9. **18 November 2022** – Five-Day Faculty Development Programme on "Cloud Practitioner (AWS)".
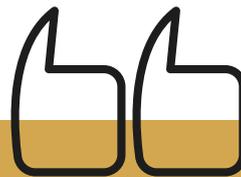
Student Special Achievements

- **5 November 2022** – Participated in Intelligent Innovators Hackathon.
- **25–29 August 2022** – Participated in Smart India Hackathon 2022.
- **30 students** participated in various placement-related activities.
- **24 students** actively took part in co-curricular activities during the academic period.

Internet of Things Connecting the World

The Internet of Things (IoT) encompasses a network of interconnected physical devices that are linked to the internet and are capable of collecting and sharing data. This range of devices includes:

- Sensors
- Smart appliances
- Wearable technology
- Industrial machinery

IoT technology finds extensive applications in various fields such as smart homes, healthcare monitoring, agriculture.

CHAVVA GAYATHRI VTU2416I

The Importance of IOT

For instance, smart thermostats and security systems enable users to manage devices from afar. The Internet of Things (IoT) enhances efficiency, automation, and convenience in daily life. Students studying IoT acquire insights into sensors, communication networks, and embedded systems. This technology fosters innovation by developing smart solutions to real-world challenges. IoT is revolutionizing the way individuals engage with technology. As the number of connected devices increases, IoT will be pivotal in shaping the future digital landscape.

.Net Framework (Subject Code: 1157CS110)

Resource Person: Mr. Syed Mohammed Nisar Alam, CEO, Crescent Technosoft, Bangalore

Date: 16.08.22 – 18.08.22 | Hours: 15 | Credits: 1 | Students Registered: 54

Angular JS (Subject Code: 1157CS982)

Resource Person: Mrs. Karthika, Lead Software Engineer, TVS NEXT Limited, Chennai

Date: 02.09.22 – 17.09.22 | Hours: 15 | Credits: 1 | Students Registered: 58

DevOps (Subject Code: 1157CS956)

Resource Person: Dr. T. Nallasamy, Manager – Operations, Cognizant Technologies, IITM, Chennai

Date: 20.08.22, 27.08.22, 02.09.22 | Hours: 15 | Credits: 1 | Students Registered: 60

Reactive JS (Subject Code: 1157CS996)

Resource Person: Mr. Ganapathi Raghavan, Technical Lead, Inova Solutions

Date: 09.09.22, 10.09.22, 24.09.22 | Hours: 15 | Credits: 1 | Students Registered: 51

Augmented Reality / Virtual Reality (Subject Code: 1157C1118)

Resource Person: Mr. Srinivasan Vangapannavarapu, Founder & CEO, GRAHAs VR

Date: 12.09.22, 13.09.22, 16.09.22 | Hours: 15 | Credits: 1 | Students Registered: 47

UI / UX Design (Subject Code: 1157CS119)

Resource Person: Mr. Mohd Waseem Ansar S., UI/UX Designer, WTL Studios Pvt. Ltd., Hyderabad

Date: 19.09.22 – 21.09.22 | Hours: 15 | Credits: 1 | Students Registered: —

Performance Theory and Evaluation (Subject Code: 1157CS123)

Resource Person: Prof. Dr. Hee Yong Youn, Sungkyunkwan University, South Korea

Date: 12.09.22 – 16.09.22 | Hours: 15 | Credits: 1 | Students Earned Credit: 36

Performance Modelling and Simulation (Subject Code: 1157CS122)

Resource Person: Prof. Dr. Hee Yong Youn, Sungkyunkwan University, South Korea

Date: 22.08.22 – 31.08.22 | Hours: 15 | Credits: 1 | Students Earned Credit: 46

Drawing: Creativity Through Visual Art

Drawing: A Dynamic Medium of Visual Expression
Drawing is a lively form of visual expression that allows individuals to communicate their ideas through sketches and illustrations. Artists employ lines, shapes, and colors to create compelling images. Additionally, drawing fosters the development of observation skills and boosts creativity.

**CHINTHAKRINDA PRASANTH SAI
VTU22712**

Many students turn to drawing as a way to express their imagination and emotions. This practice encourages artistic thinking and ignites even more innovation. Drawings can capture a wider range of themes like nature, culture, technology, or social issues. Through their artwork, students share their unique viewpoints with others. Moreover, drawing cultivates greater patience and concentration. It's a joyful activity that further fosters creativity and hones artistic skills.

PATENT DETAILS JAN 2023- JULY 2023

A total of **9** patents were filed and published/granted during this period, showcasing the department's strong focus on innovation and research.

Highlights

- **Total Patents Filed:** 9
- **Faculty Involved:** 6
- **Earliest Filed:** Jan 11, 2023
- **Latest Published:** Jun 27, 2023
- **Major Domains:** AI, IoT, Smart Systems, Assistive Technology.

Faculty Name	Patent Title	IPR Filed	Published / Granted
Dr. Chidambaranathan	Artificial Intelligence	Feb 18, 2023	Mar 17, 2023
Dr. M. Sankar	Milk Adulteration Monitoring	Jan 11, 2023	Mar 20, 2023
Dr. M. Sankar	Sun Tracking Solar Panel	Jan 11, 2023	Mar 20, 2023
Dr. M. Sankar	Wearable Medical Monitoring	Jan 11, 2023	Mar 20, 2023
Dr. M. Sankar	Street Light	Jan 11, 2023	Mar 16, 2023
Dr. P. J. Beslin Pajila	IoT Enabled Energy Efficient System	Mar 27, 2023	Jun 27, 2023
Dr. N. K. Senthil Kumar	IoT-driven Design System	Apr 20, 2023	May 5, 2023
Dr. Arun Kumar M. S	Walking Stick for Visually Impaired	May 27, 2023	Jun 6, 2023
Dr. Angeline Lydia	Obstacle Detection System	Apr 17, 2023	May 19, 2023

PATENT DETAILS
JULY 2022- DEC 2023

A total of 6 patents were filed, published, or granted during this period — highlighting the department's active contribution to research and innovation

Patent Highlights
- **Total Patents:** 6
- **Published:** 4 **| Granted:** 1 **| Filed:** 1
- **Faculty Involved:** 6
- **Key Domains:** IoT, AI, Healthcare, Smart Systems

Faculty Name	Patent Title	Status	Patent No.
Siva Rama Lingham N	IoT-driven Platform using AR Exergaming for Assessing Physical & Mental Activities	Published	202241030368
Dr. S. Saravanan	Conceptual Framework for Changing Demands in Indian Healthcare Services	Published	202241047655 A
Dr. T. Kamaleshwar	Cloud & IoT based Implementation of Intelligent E-Mirror System using Python	Published	202141049776
Dr. S. Koteeswaran	ML Based Heart Patient Sensing & Monitoring Method	Filed	202231046237
Mr. Prabakaran K	IoT Driven Smart Carbon Monitoring using AI	Published	202241045444
Dr. V. Dhilip Kumar	Volatile Components Collection Unit with Incineration of Crude Plant	Granted	2021103575

PATENT DETAILS
JULY 2022- DEC 2023

The department demonstrated strong innovation through 7 patents in this period — spanning IoT, AI, healthcare, and smart systems.

Patent Highlights
- **Total Patents:** 7
- **Published:** 5 **| Granted:** 1 **| Awaiting:** 1
- **Faculty Involved:** 6
- **Domains:** IoT, AI, Big Data, Healthcare

Faculty Name	Patent Title	Status	Patent No.
Dr. V. Dhilip Kumar	AI, IoT based real-time condition monitoring of electrical machines	Published	202241015285 A
Dr. V. Dhilip Kumar	IoT-driven water quality monitoring system and removal	Published	202241013945 A
Dr. N. Rajkumar	Managing IoT data processing with Big Data & ML techniques	Published	202211049067
Dr. N. Malarvizhi	Non-invasive glucometer	Application Awaiting	202241047232
U. Hemavathi	AI, IoT based real-time condition monitoring of electrical machines	Published	202241015285 A
Dr. P. S. Ramesh	AI-based pollution monitoring system using smart IoT	Published	202241049371
Dr. S. Jagan	AI & IoT-based system for monitoring volume of fuel	Granted	2021103863

RESEARCH / PATENT / BOOK & BOOK CHAPTER PUBLICATIONS
Jan 2023- june2023

13 - SCI PAPERS PUBLISHED 18 SCOPUS PAPERS PUBLISHED
18 STUDENT AND FACULTY PUBLICATION
22 CONFERENCE PAPER PUBLISHED

S.no	Title (Shortened)	Authors (Lead)	Journal / Publisher	Month 2023
1	Marine Predator Optimization for Shrimp Prediction	Prema K., Visumathi J.	IJRITCC	Mar
2	Hypothyroid Prediction Model	Shyamala Devi M. et al.	Sensors	Mar
3	Pneumothorax Diagnosis	V. Dhilip Kumar et al.	MDPI Diagnostics	Mar
4	BP Neural Network for Teaching Quality	Guru Vimal Kumar M. et al.	Journal of Applied Sciences	Jan
5	Smart Cataract Detection with Bi-LSTM	Kalyani B.J.D. et al.	Soft Computing	Feb
6	CNN for Strawberry Disease Prediction	Shyamala Devi M. et al.	IEEE Xplore	Apr
7	DR-NAP for WSN	A. Kavitha et al.	Wiley IJCS	May
8	Parallel Mirrors + Deep Learning (Shrimp)	Prema K., Visumathi J.	IJRITCC	Apr
9	E-Learning Recommendation System	Manikandan N.K., Kavitha M.	Intelligent & Fuzzy Systems	Jun
10	Image Clustering & Feature Extraction	Bhuvanya R., Kavitha M.	Cybernetics & Info. Tech.	Jun

BOOK & BOOK CHAPTERS
Jan 2023- July 2023

The publication record of the author includes a total of 18 works. This comprises 6 books and 12 book chapters, reflecting a diverse contribution to academic literature.

Dr. M.A. Mukunthan
- Book: Database Management – Shanlax (Jan 2023)

Dr. P.S. Ramesh
- Book: Blockchain Technologies – Book Rivers (Mar 2023)
- Book Chapter: A Novel Model for IoT Blockchain – System Design for Epidemics (Feb 2023)

Mr. Muthukrishnan
- Book Chapter: A Secure Quantum – IGI Global Publisher (Mar 2023)

Dr. M. Shyamala Devi
- Book Chapters:
  - Cognitive Science and Technology – Springer (Jan 2023)
  - System Design for Epidemics – Springer (Feb 2023)
  - Lecture Notes in Networks and… – Springer (Feb & Mar 2023)
  - A Novel 18-Convolutional – Springer (Feb 2023)

Dr. S. Jagan
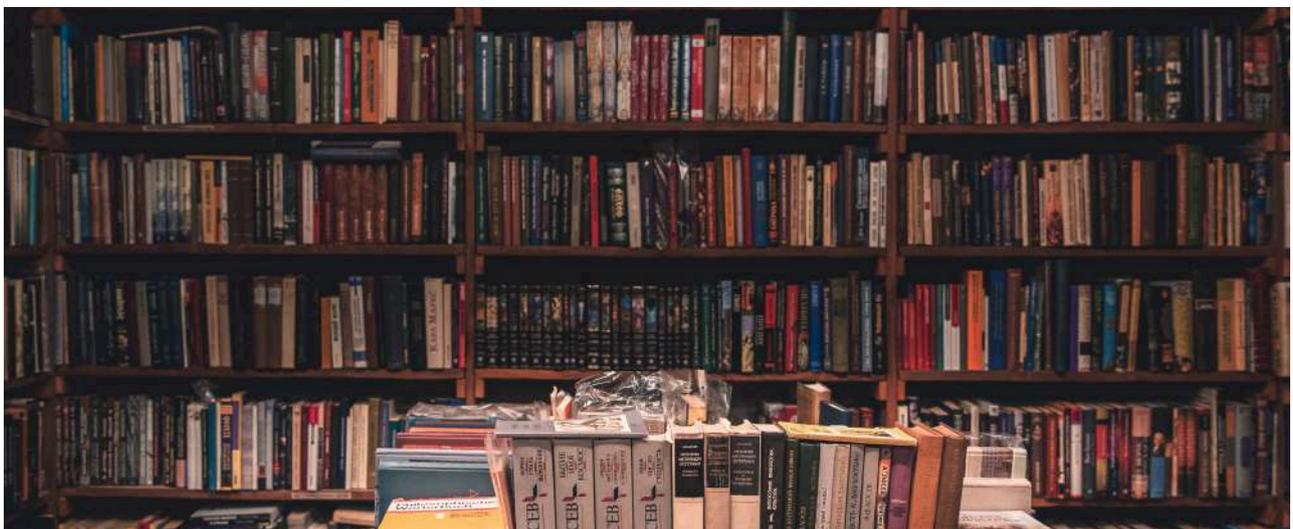- Book: Machine Learning – Springer (Jan 2023)

Dr. V. Dhilipkumar
- Book: System Design for Epidemics – Springer (Feb 2023)
- Book Chapter: Deep Convolutional – Springer (Feb 2023)

Dr. S. Vinoth Kumar
- Book: Big Data Technologies – Evincepub Publishing (Apr 2023)

N.R. Rajalakshmi
- Book Chapter: Blockchain-based Big Data – Elsevier (May 2023)

Domain Name	Number of Faculties Participated
Cyber Security	8
Machine Learning & Deep Learning	60
Internet of Things & Industry 4.0	15
Artificial Intelligence & NLP	45
Data Visualization	3
Teaching & Learning	10
Computer Vision & Data Science	29
Big Data Analytics	7
Image Processing	5
AWS	10
Blockchain Technology	12
Cloud Computing	27
Middleware Technologies	43
Network Security	29
Web / Mobile Application Development	5
Programming	5
IPR & Research	40
Digital Workspace & Virtualization	3
Mainframe System Administration	3
Others	10

Total Faculty Participated 1,482 Prize Winners: 86

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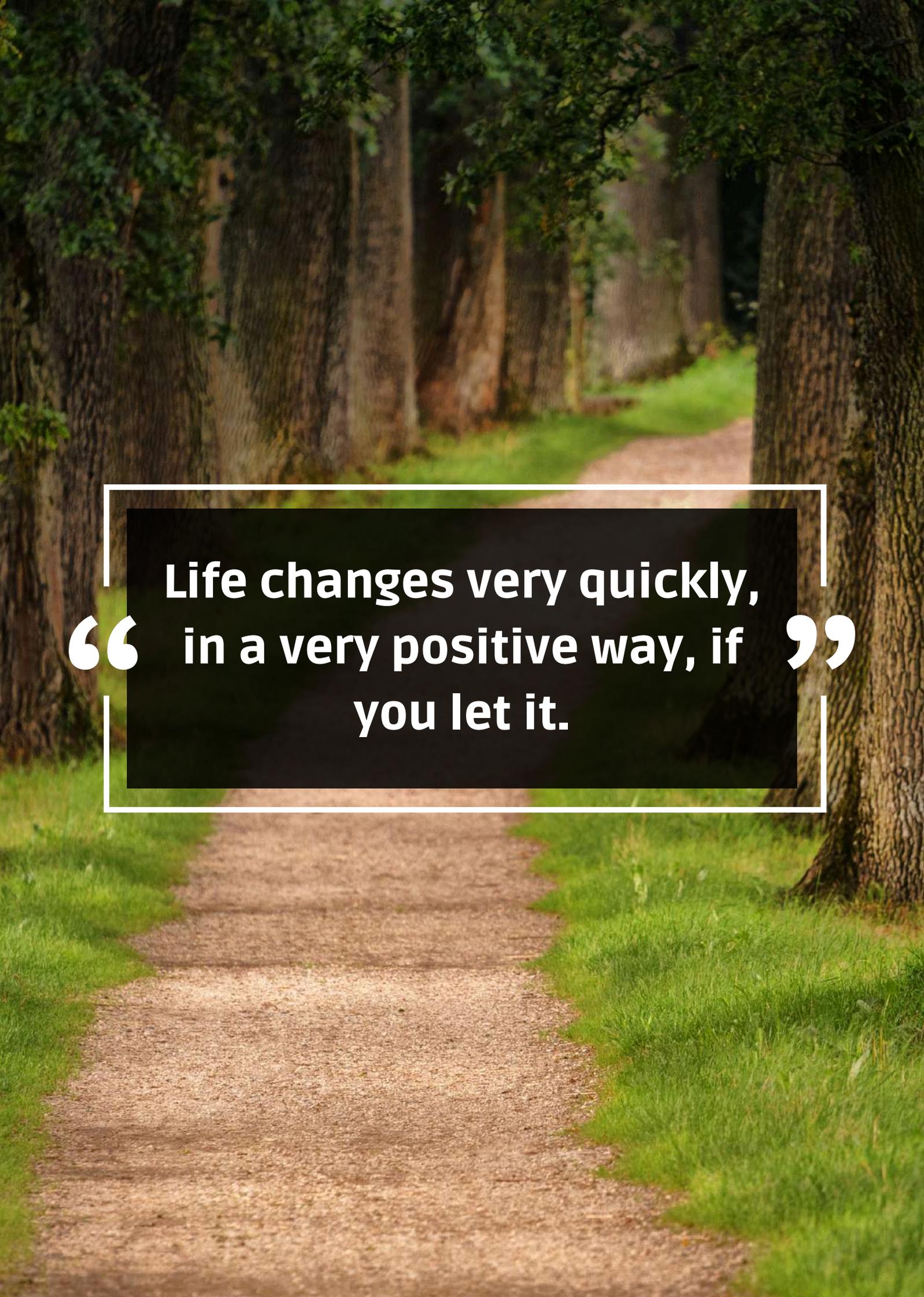
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"Life changes very quickly, in a very positive way, if you let it."
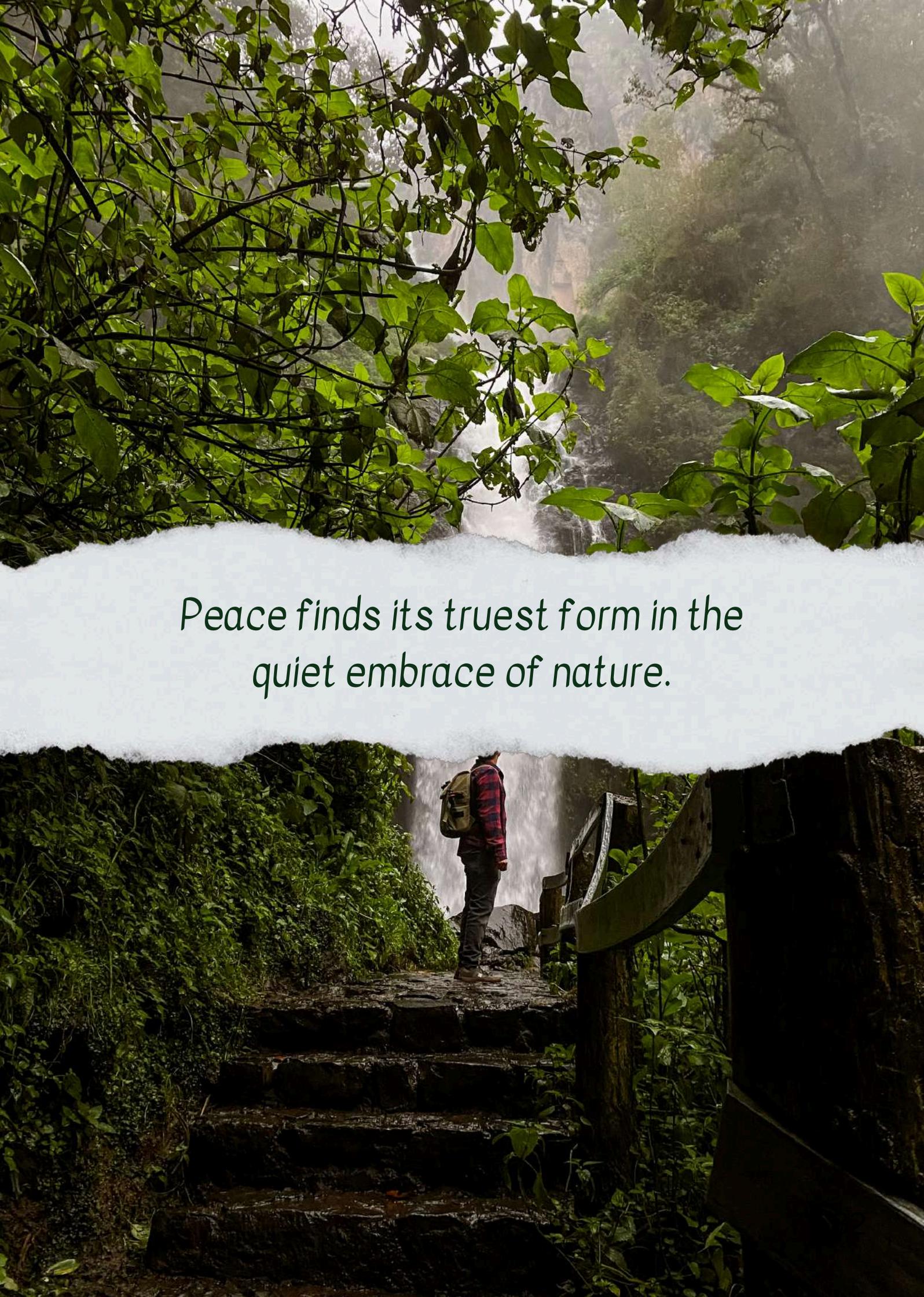
Peace finds its truest form in the quiet embrace of nature.