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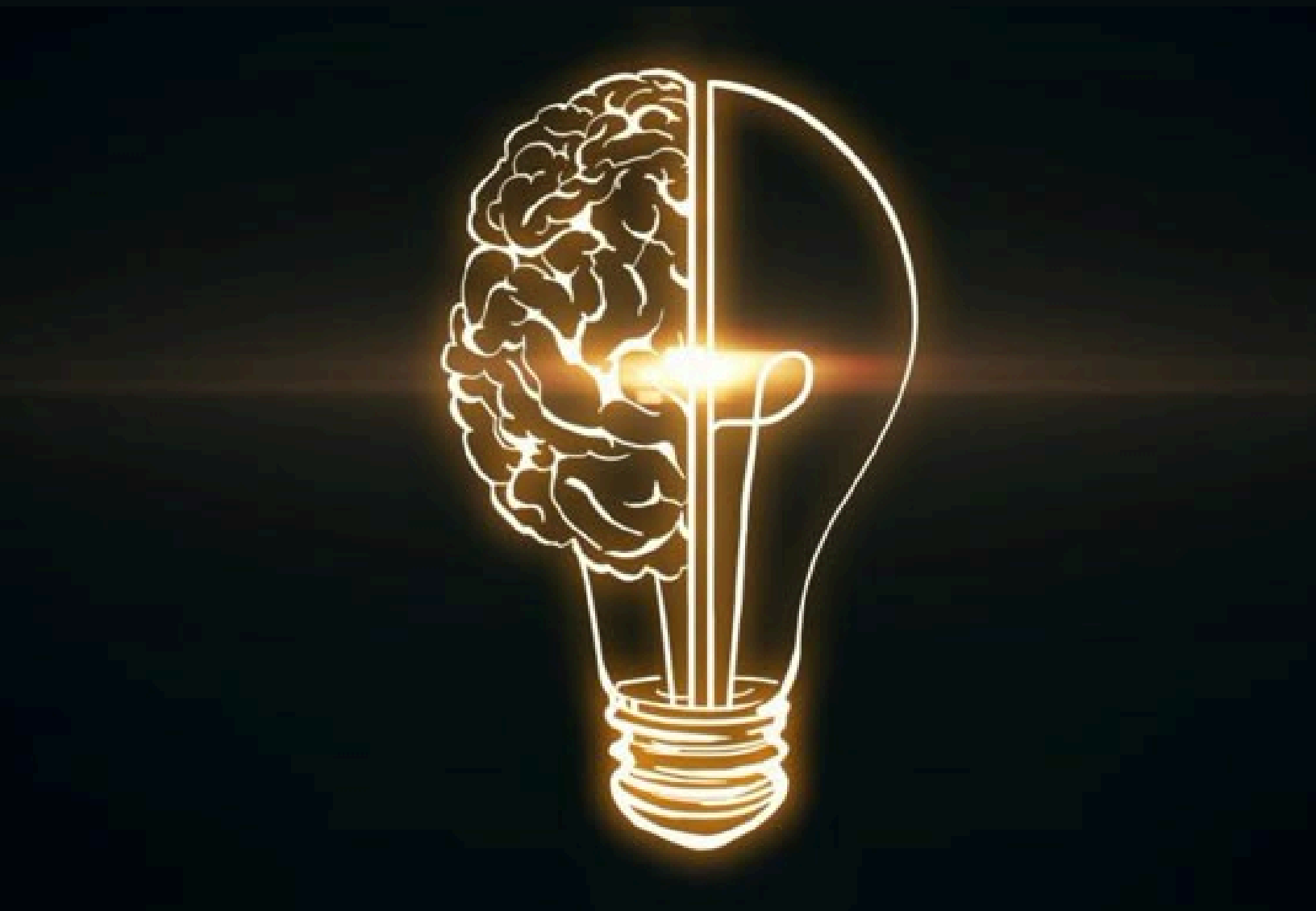
REACH GREATER HEIGHTS
OVER 48 YEARS

The Communique

Presidency School of Computer Science & Engineering
&
Presidency School of Information Science

Sensing the Future: IoT at the Crossroads of Innovation



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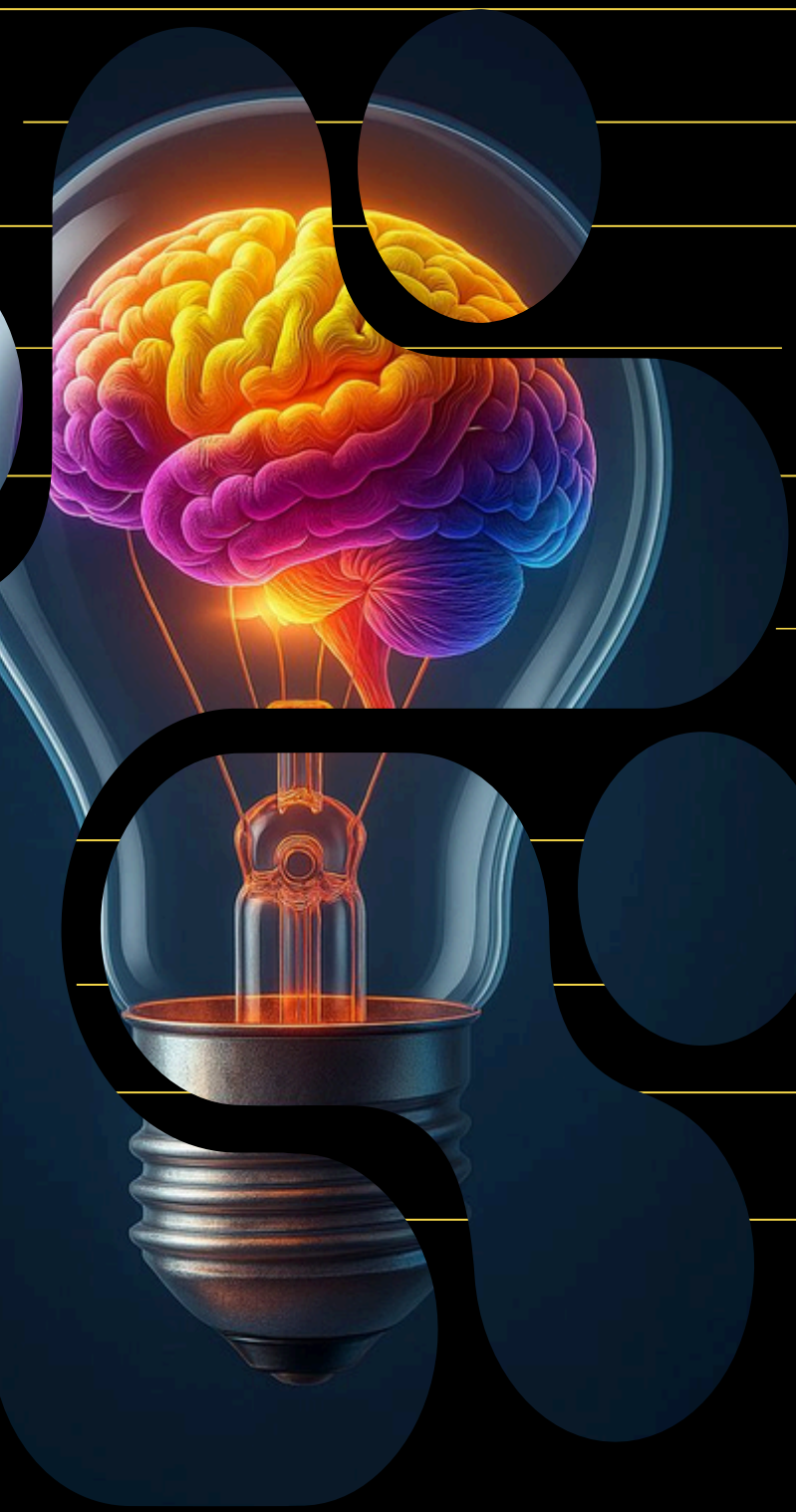


LETTER FROM THE EDITOR

From Insights to Impact—Lead the Change

As we step into an era of intelligent connectivity, the Internet of Things (IoT) is quietly transforming our world—connecting devices, systems, and people like never before. From smart homes and healthcare to agriculture and industry, IoT is reshaping the way we live, work, and make decisions,

This edition, "Sensing the Future: IoT at the Crossroads of Innovation," explores the growing impact of IoT across sectors. We spotlight real-world applications, research breakthroughs, and the pressing need for ethical considerations in a hyper-connected world—particularly in data security and privacy.

At this crossroads, the question is not just what IoT can do, but how we can guide it responsibly. Technology must serve humanity, not replace it.

Join us in exploring how to sense the future—and shape it with wisdom.

The Editorial Board

FROM THE HELM

It is my privilege to present this edition of The Communique, centered on a theme that encapsulates one of the most significant technological shifts of our time: “Sensing the Future: IoT at the Crossroads of Innovation.”

The Internet of Things (IoT) is no longer a futuristic concept—it is a present-day reality that is transforming how we connect, communicate, and collaborate. From smart homes and intelligent healthcare systems to precision agriculture and industrial automation, IoT is reshaping every aspect of modern life by enabling real-time sensing, data exchange, and informed decision-making.

This transformative power lies not only in technology but in its convergence with human insight. As devices become smarter and more interconnected, the responsibility to build secure, ethical, and sustainable systems becomes more critical than ever. Issues like data privacy, system reliability, and ethical governance must accompany the pace of innovation.
At Presidency University, we are committed to preparing students to lead this transformation. Through research, interdisciplinary learning, and hands-on innovation, we strive to nurture technologists who not only understand the "how" of technology, but also the "why."

This edition offers a window into the potential and challenges of IoT as it stands at the intersection of digital progress and societal impact. I encourage you to engage with its perspectives, reflect on its ideas, and envision a future shaped by responsible innovation.

Enjoy this thought-provoking edition of The Communique.

Best Regards,
Prof. (Dr.) S. Sivaperumal
B.E. (ECE), M.E. (VLSI), Ph.D. (Control Systems) Ph.D. (Communication Systems), FIE., FIETE., SMIEEE., MISTE.
Pro - Vice Chancellor
Director - International Relations
Professor – Electronics and Communication Engineering

THE COMMUNIQUE

THE TEAM

The essence
and
The spirit
That breathe
Life into it all.

DR. R. MAHALAKSHMI
EDITOR -IN-CHIEF

MS. NEHA ARORA
EDITOR

DR. NAIWRITA BORAH
EDITOR

Heartiest Congratulations to Our Honorable Chancellor on Receiving the Lifetime Achievement Award

Layered Intelligence: How the S-400 Inspires IoT Innovation

As we stand at the crossroads of technological evolution, the Internet of Things (IoT) is reshaping the way we live, work, and respond to the world. To envision where this innovation is heading, one need only look to a surprising source of inspiration: the **S-400 Triumf Missile Defense System.**

Designed for multi-range detection and rapid interception, the S-400 integrates long-, medium-, and short-range radars with high-speed decision-making systems. This sophisticated architecture mirrors the future of IoT—an ecosystem of interconnected devices sensing, processing, and acting in real time.

Like the S-400, next-generation IoT systems rely on layered intelligence. In smart cities, traffic sensors, surveillance systems, and environmental monitors must collaborate like radar units to produce actionable insights. In healthcare, wearables and diagnostic devices form a multi-tiered defense against emergencies—just as the S-400 counters threats at varying distances.

Five core lessons IoT can draw from the S-400 include:

- Sensor fusion across domains
- Real-time autonomous decision-making
- Layered security models
- Scalable architecture
- Resilient, fail-safe systems

As IoT merges with AI and edge computing, we're entering an era where systems don't just gather data—they act on it instantly. The goal isn't just smart connectivity. It is strategic responsiveness.

The S-400 teaches us that the future of sensing systems lies in coordination, speed, and adaptability. In agriculture, industry, or public safety, tomorrow's IoT must think and act as fast as the environment changes.
Under this issue's theme, "Sensing the Future," we see the blueprint: not just in circuits and code, but in real-world systems built to think like a networked brain. IoT, like the S-400, is not just technology—it's awareness in action.

Dr. R. Mahalakshmi
Professor & Associate Dean (SOIS)
Presidency University, Bengaluru

Ms. Neha Arora
Assistant Professor (SOIS)
Presidency University, Bengaluru

THE IMPORTANCE OF AI ETHICS IN A RAPIDLY EVOLVING WORLD

Artificial Intelligence (AI) is transforming our daily lives—from virtual assistants and facial recognition to healthcare diagnostics and autonomous vehicles. Amid this rapid growth, a critical question arises: **Are we building AI responsibly?**

AI Ethics is more than a trend—it's a crucial framework to ensure technology aligns with human values. As machines take on more decision-making roles, core principles like fairness, transparency, accountability, privacy, and safety become essential.

- **Bias:** AI trained on skewed data can reinforce societal inequalities in hiring, policin, and finance.
- **Transparency:** Ethical AI must be explainable, not a "black box."
- **Accountability:** Clear responsibility is needed when AI causes harm or errors.
- **Privacy:** In a data-driven world, protecting individual privacy and ensuring informed consent is vital.

Our Department's Ethical AI Vision

At the School of Computer Science and Engineering, Presidency University, we are committed to shaping not only competent AI professionals but also ethical ones. Our AI and ML programs incorporate:

- Courses on Responsible AI
- Workshops on Explainable AI
- Ethics modules within technical subjects
- Project evaluations based on ethical impact
-

Conclusion

As AI shapes the future, it must be guided by ethics. The goal is not to hinder innovation but to ensure it grows responsibly—with integrity, empathy, and a commitment to the greater good.

"TECHNOLOGY WITHOUT ETHICS IS INNOVATION WITHOUT DIRECTION."

Dr. Zafar Ali Khan N
Professor & Head, CSE – CAI, ISE & RAI,
Presidency University ,Bengaluru

AIoT: Shaping the Future of Intelligent Connectivity

In the fast-evolving tech landscape of 2025, the fusion of Artificial Intelligence (AI) and the Internet of Things (IoT)—known as AIoT—is transforming industries. By combining AI's real-time analytics with IoT's sensor networks, organizations are unlocking smarter automation, sustainability, and edge-level decision-making.

What's New in AIoT?

- **Adaptive Perception Technologies**

AI-powered imaging now delivers clear visuals in low light and motion, while radar and sound sensors support industrial monitoring—even through dust, smoke, or noise.

- **5G-Enabled AIoT**

The rollout of 5G and OpenRAN enables seamless connectivity for billions of devices, boosting reliability and supporting smart cities and industrial automation.

- **Collaborative AIoT Ecosystems**

Open platforms, standard protocols, and easy-to-use AI tools are helping integrators build custom AIoT solutions faster.

- **Cybersecurity & Privacy by Design**

With more devices come greater risks. Measures like intrusion detection, hardware encryption, and zero-trust frameworks are becoming standard practice.

- **AIoT for Sustainability**

AIoT is automating energy use in buildings and transport, cutting waste, and supporting low-carbon operations.

AIoT is no longer futuristic—it's here. With smart automation, secure connectivity, and sustainability, it's delivering real-world impact. Going forward, collaboration and ethical use will be key to its success.

Dr Jai Singh W
Professor and Head
School of Information Science
Presidency University , Bengaluru

QUANTUM COMMUNICATION FOR SECURE AGRI-IOT NETWORKS

As smart farming evolves, IoT devices are revolutionizing agriculture through real-time monitoring, automation, and data analytics. But with this digitization comes increased vulnerability—cyber threats targeting crop data, irrigation systems, and autonomous farm equipment are on the rise.

Using the principles of quantum mechanics, particularly Quantum Key Distribution (QKD), data transmission becomes virtually unhackable. Unlike classical encryption, any interception attempt in quantum channels alters the data's state—immediately signalling a breach.

Why It Matters:

🔒 Ensures secure communication between sensors, drones, and cloud systems.

🚜 Protects agricultural infrastructure from cyberattacks.

🌍 Enables global scalability for food security and digital trust.

Open Research Problems

1.Scalability of Quantum Key Distribution (QKD) in Rural Networks

- How to make QKD viable across vast farmlands?
- Develop energy-efficient, lightweight QKD for typical Agri-IoT devices.

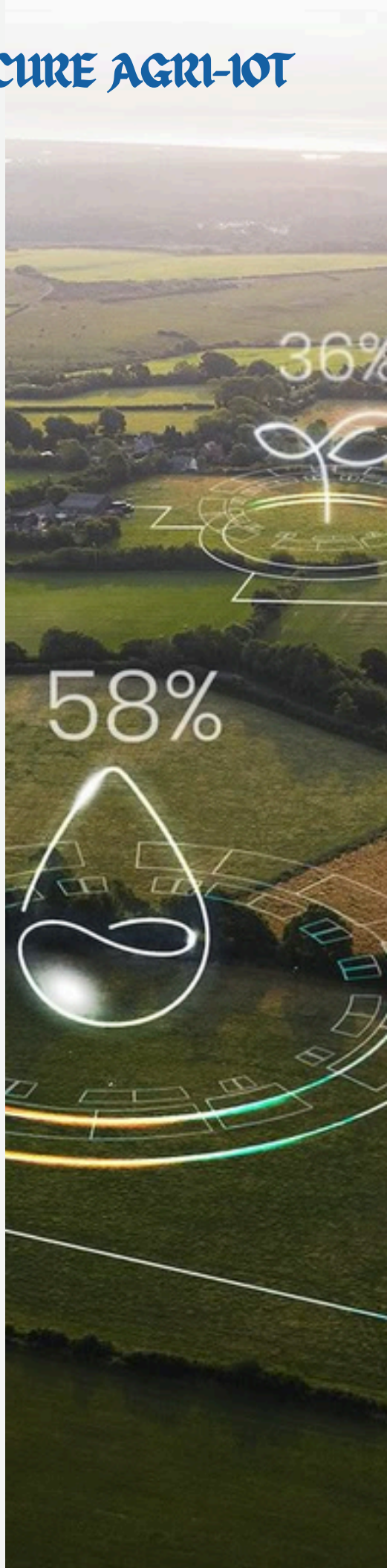
2. Integration of Quantum and Classical IoT Networks

- Seamlessly merge quantum-secure and traditional IoT networks.
- Design hybrid protocols balancing security and deployment ease.

3. Resource Constraints on Devices

- Tailor quantum cryptography for low-cost, low-power Agri-IoT sensors.
- Miniaturize quantum hardware for field use.

Dr. Gopal K. Shyam
Professor and HoD : COM & CEI
SoCSE, Presidency University, Bengaluru



COGNITIVE IOT: AI-DRIVEN, SELF-ADAPTIVE SENSING FOR THE FUTURE

Cognitive IoT (CIoT) is transforming traditional sensing systems into intelligent, adaptive ecosystems. By integrating lightweight AI models directly into edge devices, CIoT enables real-time, local decision-making—minimizing latency, bandwidth use, and energy consumption.

Key Innovations

- Edge AI: Micro-sensors with onboard AI handle tasks like anomaly detection and predictive maintenance without cloud reliance.
- Context-Aware Sensing: Sensors adjust sampling rates based on environmental changes (e.g., crowd density, temperature shifts).
- Energy Harvesting Nodes: Battery-less sensors powered by solar, RF, or thermal sources ensure long-term, sustainable operation.
- Blockchain Integration: Secures sensor data with decentralized, tamper-proof records.
- Digital Twin Updates: CIoT nodes sync with cloud-based virtual models for remote monitoring and diagnostics.

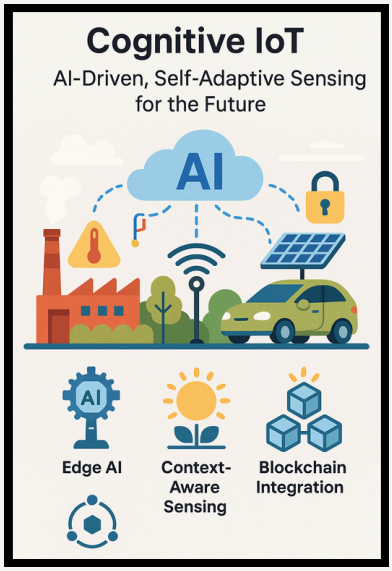
Applications

- Healthcare: Wearable patches adapt monitoring to patient activity.
- Agriculture: Sensors optimize irrigation based on soil and climate.
- Smart Cities: Adaptive sensing for traffic, air quality, and noise.
- Industry 5.0: On-device AI enables predictive maintenance.

Conclusion

CIoT redefines IoT from passive connectivity to intelligent, self-optimizing systems—paving the way for smarter, sustainable environments.

Dr. HarishKumar K S
Assistant Professor - Senior Scale
School of Information Science
Presidency University, Bengaluru



IOT INNOVATORS TO WATCH: VOICES SHAPING THE FUTURE

As we explore the theme "Sensing the Future: IoT at the Crossroads of Innovation," it is essential to spotlight thought leaders and pioneers whose work is pushing the boundaries of what's possible with IoT. From academic excellence to record-breaking innovation and visionary enterprise strategy, these individuals embody the transformational potential of smart sensing technologies.

Mr. Sudip Misra - Academic Excellence in Intelligent IoT

A professor at IIT Kharagpur and the only Indian elected ACM Fellow in 2024, Prof. Sudip Misra is a global leader in IoT research. His pioneering work in service-centric sensing, scalable frameworks, and energy-efficient data processing has redefined how smart networks operate. As founder of the SWAN Lab, he drives innovation in edge computing, sensor networks, and AI-powered IoT systems—laying the groundwork for the next generation of intelligent, sustainable technologies.

Mr. obi Oyinlola - Disruptive Innovation in Urban IoT

A researcher at MIT's Senseable City Lab, Tobi Oyinlola earned a Guinness World Record in 2025 for creating the world's smallest GPS tracker. His work in solar-powered sensing and mobile urban monitoring, including the City Scanner project, showcases how compact, intelligent tech can transform cities. Bridging innovation with civic impact, Tobi represents the next wave of inventors reshaping urban life through smart, sustainable solutions.

Ms. Bridget Karlin - Visionary Leader in AIoT Integration

As CTO and Global Managing Director for IoT Strategy at IBM, Bridget Karlin leads the convergence of IoT, AI, and cloud to transform enterprise ecosystems. She champions hyper-automation and real-time intelligence, forecasting a $30 trillion AIoT impact by 2030. A strong advocate for inclusive, responsible tech, Bridget is shaping a future where connected intelligence drives both business innovation and societal progress.

Why They Matter?

Together, these innovators represent the full spectrum of IoT potential: - Prof. Misra grounds us in the deep science and sustainability of sensing networks. - Tobi Oyinlola inspires us through innovation that scales from street corners to city grids. - Bridget Karlin shows us how IoT evolves from technology to economic and humanitarian force. Their work invites us all to sense more boldly, innovate more ethically, and shape a smarter world through IoT.

Warm Regards,
Editorial Team

Research Frontiers

Mr. Jai Kumar B
Assistant Professor

Dr. Leelambika K V
Asst. Professor - Senior Scale

Dr. Srabana Pramanik
Assistant Professor

Ms. Josephine R
Assistant Professor

Mr. Jai Kumar B, along with Dr. Leelambika K V, Dr. Srabana Pramanik and Ms. Josephine R has co-authored the book titled "Mastering Data Analytics and Visualizations with Python" reflecting their collective effort to promote programming skills.

Dr. Anandaraj S P
Professor

Ms. Josephine R
Assistant Professor

Ms. Arshiya Lubna
Assistant Professor

Dr. Anandaraj S P and Ms. Josephine R presented groundbreaking research on "Mapping the Landscape of Network Intrusion: Detection Trends, Techniques and Future Research"

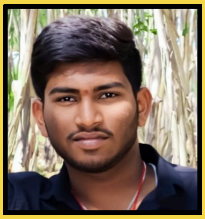
Ms. Arshiya Lubna presented groundbreaking research on "Brain Tumour Detection and Classification using Reinforcement Learning"

Research Frontiers

Mr. Pakruddin.B
Assistant Professor

Mr. Manoj L
Student

Mr. Siddartha B V
Student



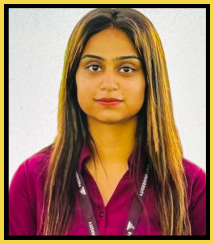
Mr. Kaku Venkata Pavan Kumar
Student

Mr. Srivathsa Dasari
Student

Mr. Kudumula Phani Keerthan Reddy
Student

Mr. Pakruddin. B along with students Mr. Manoj L, Mr. Siddartha B V, Mr. Srivathsa Dasari, Mr. Kaku Venkata Pavan Kumar and Mr. Kudumula Phani Keerthan Reddy presented groundbreaking research on "Pneumonia Detection Using Deep Learning Models With Chest X-rays" at the International Conference on Innovations in Cybersecurity and Data Science

Mr. Pakruddin.B
Assistant Professor



Ms. Vaishnavi Sooraj
Student

Mr. Pakruddin. B along with student Ms. Vaishnavi Sooraj presented groundbreaking research on "PCOS Detection and Classification using Deep Learning Approach" at the 9th International Conference on Inventive Communication and Computational Technologies.

Mr. Pakruddin.B
Assistant Professor

Mr. B. M. Vineel Eshwar
Student

Mr. Priyansh
Student

Mr. Pakruddin. B along with students Mr. B. M. Vineel Eshwar, Mr. Priyansh, Mr. Akshay Kumar Gowda S, Mr. Prathap V, Mr. Bhargav C presented groundbreaking research on "Lemon Leaf Disease Recognition using Vision Transformer Networks" at the IEEE International Conference on Electronics, Computing.

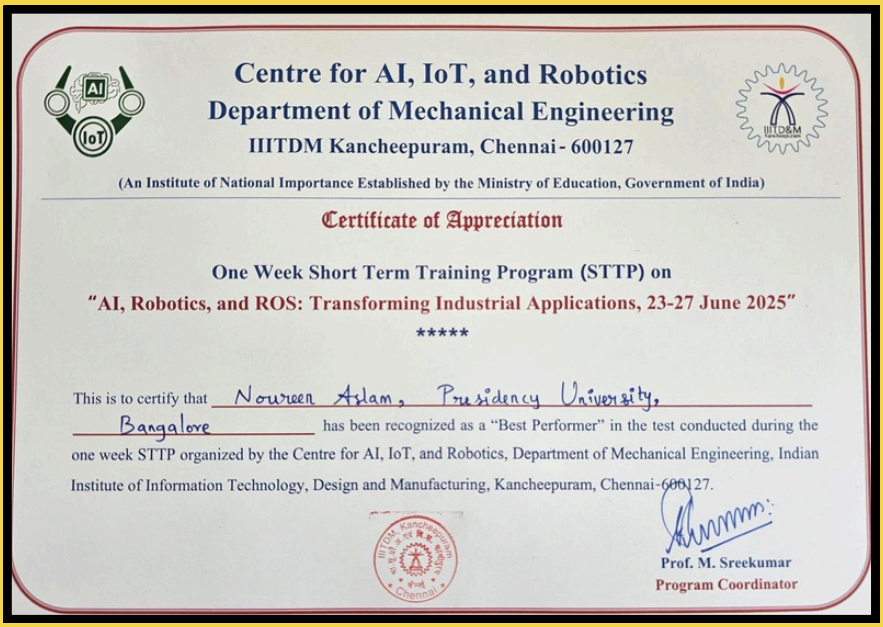
Mr. Akshay Kumar Gowda
Student

Mr. Bhargav C
Student

Mr. Prathap V
Student

Research Frontiers

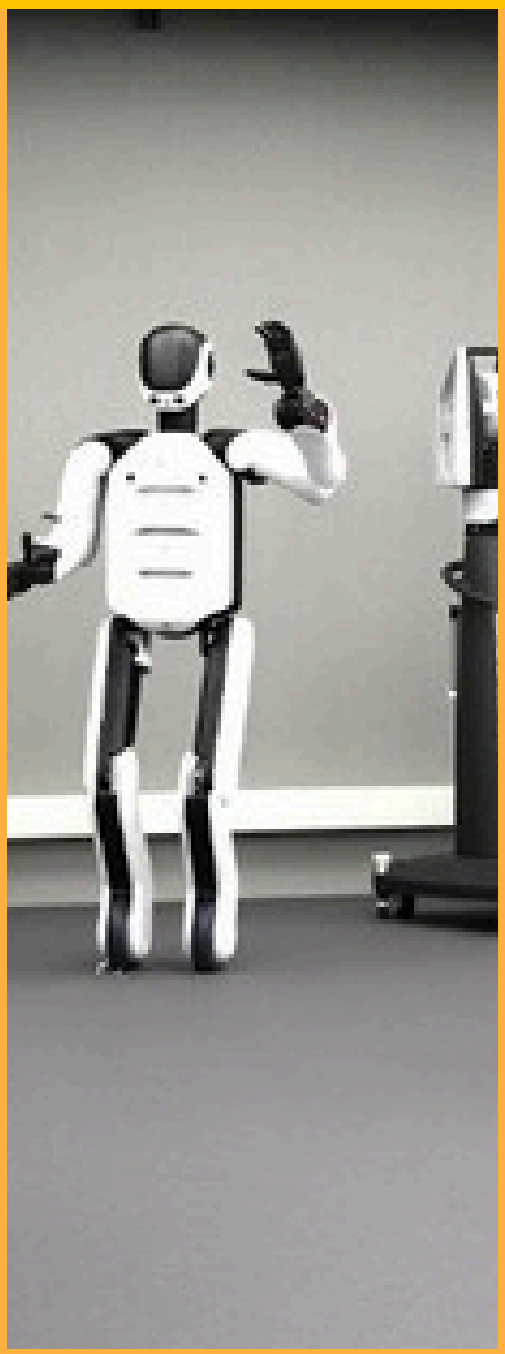
Dr. Marimuthuu. K, Professor, School of CSE, was honored as a true Innovation Changemaker at the Innovasthan Launch 2025. His exemplary contributions to research, academic excellence, and societal advancement were recognized at a national platform. The felicitation ceremony took place on 28th June 2025, in the esteemed presence of the Hon'ble Governor of Karnataka and eminent leaders.



Noureen Aslam from Presidency University was recognized as the Best Performer at a national-level STTP conducted by IIITDM Kancheepuram.

The program titled "AI, Robotics, and ROS: Transforming Industrial Applications" was held from 23rd to 27th June 2025. Her outstanding performance highlights her expertise in cutting-edge technologies shaping the future of industry.

Industry Pulse



HEXAGON UNVEILS AEON: INDUSTRIAL HUMANOID ROBOT POWERED BY NVIDIA AI

Hexagon, a global leader in digital reality solutions, has unveiled AEON, a next-gen industrial humanoid robot, at the Hexagon LIVE Global 2025 event. Designed to combat skilled labor shortages in sectors like manufacturing, logistics, and aerospace, AEON brings advanced IoT capabilities and precision to industrial environments.

At the heart of AEON is NVIDIA's robotics platform, combining AI supercomputers, simulation tools like Omniverse and Isaac Sim, and powerful edge devices such as Jetson Orin and IGX Thor. This enables AEON to learn tasks such as locomotion and manipulation in simulated environments—cutting training time from months to weeks.

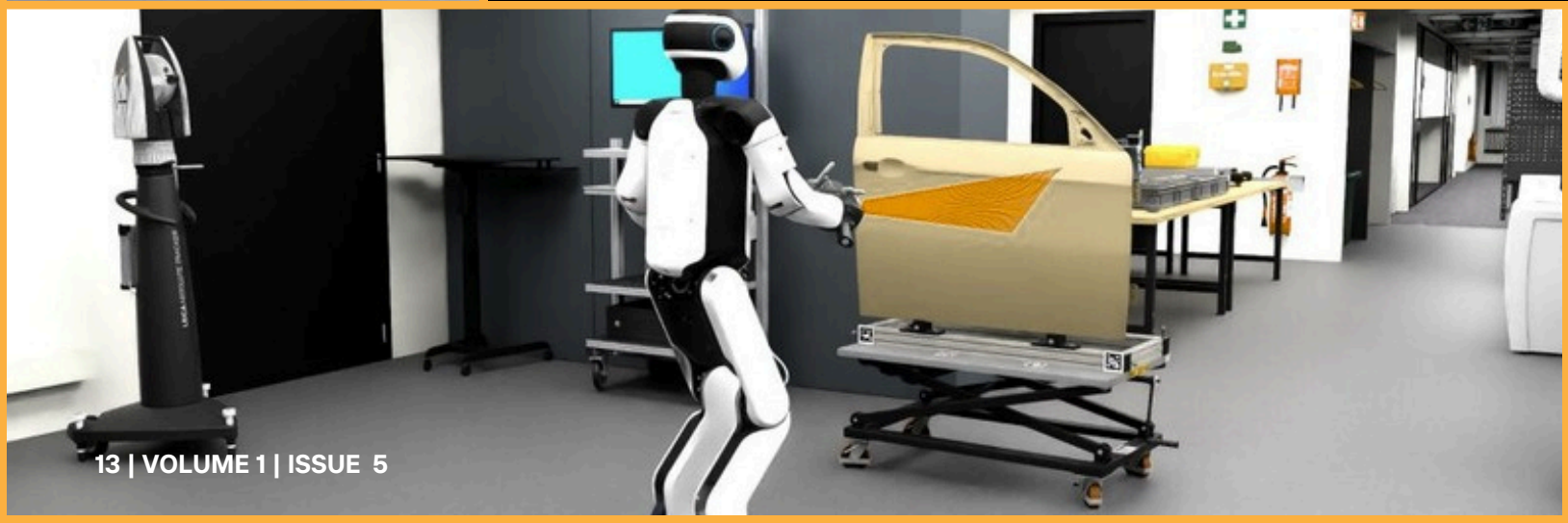
AEON is more than just a robot—it's a sensor-rich, spatially aware IoT device capable of:

- Capturing reality data to build 3D digital twins of industrial spaces.
- Performing precision part handling and defect inspection.
- Assisting in machine tending and collaborative operations.
- Operating 24/7 with its battery-swap mechanism.

Pilot deployments are underway with global manufacturers like Schaeffler and Pilatus, while collaborations with Microsoft, Maxon, and others support its scalable rollout. With AEON, Hexagon positions itself at the forefront of physical AI—a new era where humanoid robots serve as intelligent, flexible workforce companions integrated into IoT ecosystems.

Bottom Line: AEON isn't just a robot—it's a glimpse into the future of IoT-enabled, AI-powered industrial transformation.

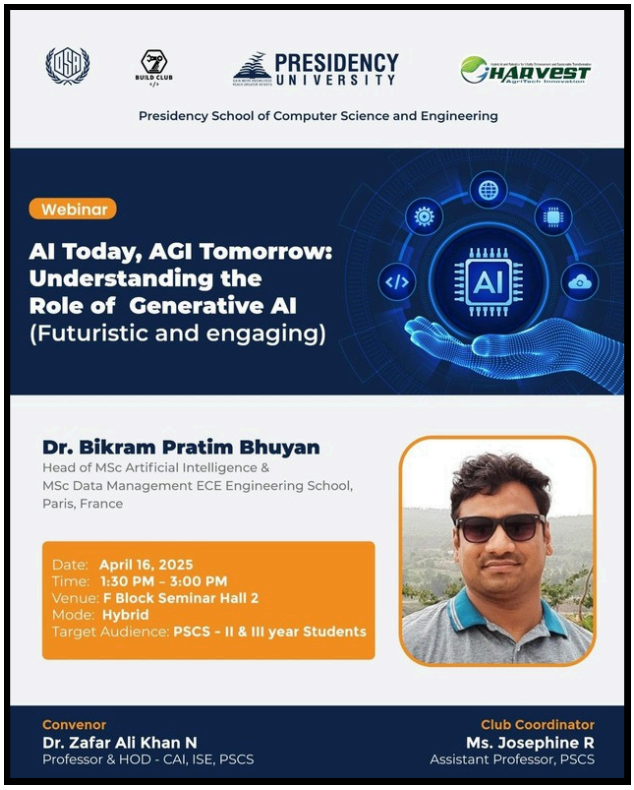
Read More at: https://iottechnews.com/news/hexagon-aeon-industrial-humanoid-robot-nvidia-ai/



DEPT NEWS

M.Tech/MCA | B.Tech | BCA | B.Sc.

Webinar On AI Today, AGI Tomorrow : Understanding the Role of Generative AI



The webinar titled "**AI Today, AGI Tomorrow: Understanding the Role of Generative AI**" was successfully conducted on 16th April 2025 by the Presidency School of Computer Science and Engineering, in association with the HARVEST and BUILD Clubs. Delivered by Dr. Bikram Pratim Bhuyan from ECE Engineering School, Paris, the session explored the evolution of AI, the core pillars of intelligent systems, and the impact of Generative AI on modern applications. Participants gained insights into advanced topics such as NLP, deep learning, and the DIKW pyramid. The session also shed light on the path towards Artificial General Intelligence (AGI).The event was convened by Dr. Zafar Ali Khan and coordinated by Ms. Josephine R.

Victory Gala: Celebrating Success of NammaSuraksha-2025

The Victory Gala: Celebrating Success was held on 9th May 2025 to honor the achievements of participants from the national-level hackathon, NammaSuraksha-2025. Conducted offline at LSL01, the event recognized innovative solutions addressing key societal challenges. Dr. R. Mahalakshmi, Professor and Associate Dean (PSIS), presided as the chief guest. The top teams were felicitated for their impactful contributions during the three-day hackathon. The event featured inspiring speeches, award presentations, and a vibrant celebratory atmosphere. The event was successfully coordinated by Ms. Sunitha B.J, Dr. Selvaraj Poornima and Ms. Pushpalatha M and received high praise for its seamless coordination and lively spirit.

DEPT NEWS

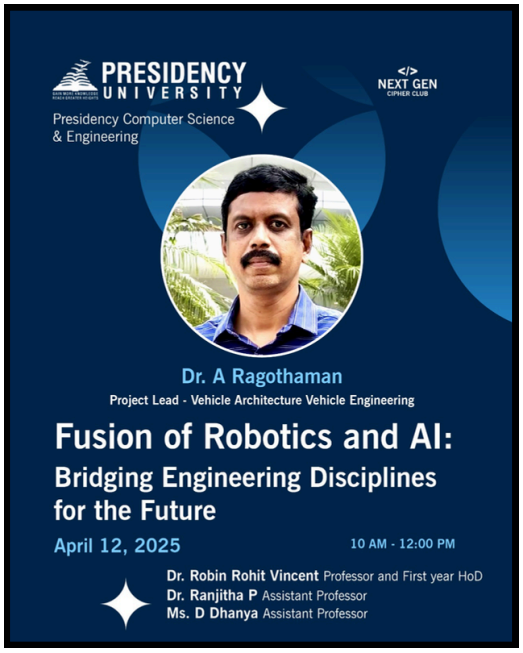
M.Tech/MCA ● B.Tech ● BCA ● B.Sc.

Hands- On Session on Thunder Compute For Research

The Faculty Development Program (FDP) on "**Thunder Compute for Research**" was conducted on 3rd June 2025 by the Department of Information Science, Presidency University. The session introduced faculty and researchers to high-performance cloud computing for data-intensive research. Dr. R. Vignesh and Mr. Jinesh V N led insightful sessions covering Thunder Compute architecture, AI/ML applications, and hands-on demos using MATLAB, Python, and Jupyter. The event was coordinated by Dr. Poornima S and Ms. Sunitha B J, with student support from Vandhana and Aishwarya. The FDP was well-received for its practical value.

Fusion of Robotics and AI: Bridging Engineering Disciplines for the Future

The Schools of Computer Science and Information Science jointly hosted a webinar on "**Fusion of Robotics and AI: Bridging Engineering Disciplines for the Future**" on 12th April 2025. Dr. A. Ragothaman, Project Lead, Vehicle Architecture Vehicle Engineering at Volvo Group, led the session with insightful discussions on automation, vehicle architecture, and the synergy between robotics and AI. This event aimed at first-year UG and PG students. the session emphasized real-world applications, interdisciplinary collaboration, and innovation. The event was successfully coordinated by Dr. Ranjitha P and Ms. Dhanya and provided an enriching platform for knowledge sharing and future exploration.



DEPT NEWS

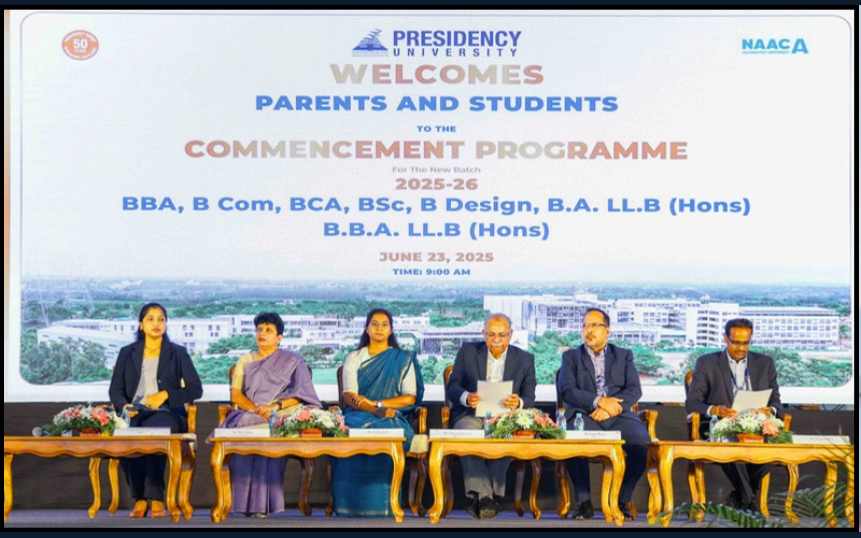
M.Tech/MCA | B.Tech | BCA | B.Sc.

Mastering Data with Tableau: A Journey into Visualization

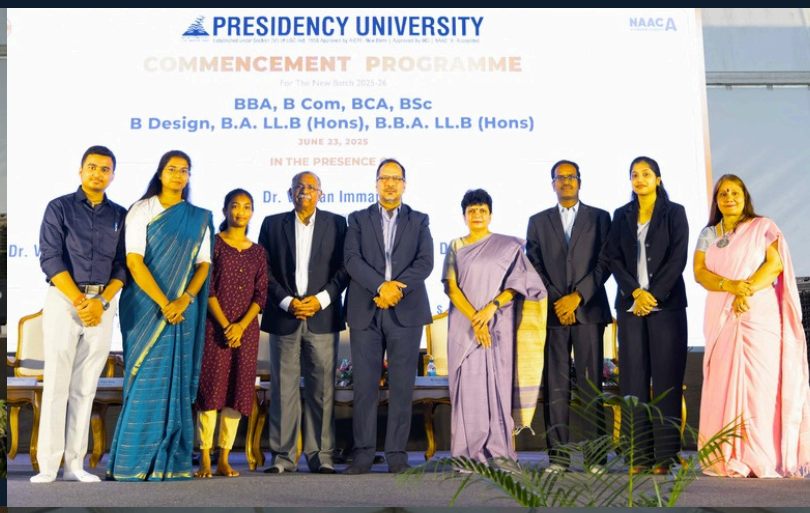
The School of Information Science organized an insightful online session titled **"Mastering Data with Tableau: Analysis & Visualization Skills"** on 29th April 2025. Mr. Vijay S, Tech Lead at Bloomfieldx Analytics, led the session with expertise, offering hands-on training and practical exposure to Tableau's features. The event was attended by UG & PG students, faculty, and industry professionals. The session emphasized data-driven decision-making and analytical thinking. The event was coordinated by Dr. Renuka Devi and Dr. Lalitha T. The event was well-received for its clarity, interactivity, and real-world relevance. Participants left inspired to explore the vast opportunities in the field of data analysis.

Navigating the Future: Insights on Tech Trends of 2025

The Crevators Club of the School of Computer Science and Engineering organized an enlightening session on **"Navigating the Future: Key Tech Trends Shaping 2025."** The event featured Mr. Ramesh Babu KM, Senior Engineering Manager at Procore, who shared valuable insights on emerging technologies such as AI, quantum computing, and cybersecurity. The session was convened by Dr. Robin Rohit Vincent and coordinated by Dr. Vijaya Kumar, Mr. Likhith S. R. and Dr.. Kuppala Saritha. The event coordination was seamlessly coordinated with strong support from students. Their enthusiasm, teamwork, and dedication played a key role in ensuring the program's success and smooth execution.



Igniting Minds, Inspiring Futures: Orientation Programme in Focus



UPCOMING EVENTS

10 July 2025

Pre-Conference Workshop

11-12 July 2025

2nd IEEE International Conference on New Frontiers in Communication, Automation, Management, and Security

30 July 2025

Engineering Orientation Programme

A Small Change Every Day makes a Big Difference

In 2003, British Cycling was performing poorly—with just one Olympic gold in nearly a century. That changed when Dave Brailsford introduced the idea of "marginal gains": improving every aspect of performance by just 1%. From better bike seats and tire grip to teaching proper handwashing and optimizing sleep, his team focused on tiny, consistent changes.

The impact was remarkable. By 2008, British cyclists dominated the Beijing Olympics, winning 60% of the gold medals. They repeated their success in London 2012 and went on to win multiple Tour de France titles. Over a decade, these 1% improvements led to one of the most successful runs in cycling history. This concept applies to everyday life. A 1% improvement every day compounds exponentially—making you nearly 38 times better in a year. In contrast, a 1% daily decline leads to near zero.

1% Better Everyday vs 1% Worse Every Day Getting:

A) % worse every day for a year means multiplying by 0.99 daily

(0.99)^365≈0.03

After one year, you'd be at just 3% of where you started

B) Getting 1% better every day for a year means multiplying by 1.01 daily

(1.01)^365≈37.78

After one year, you'd be nearly 38 times better.

Habits are like compound interest grow slowly but powerfully over time. The key takeaway? You don't need massive change to succeed. Just focus on being a little better every day. Small steps, taken consistently, lead to extraordinary results.

Start small. Stay consistent. Let your habits shape your success.

Dr. JulietRaja K
Assistant. Professor., SOE-Rathematics
Presidency University Bengaluru

STUDENT'S CORNER

A remarkable display of curiosity, innovation, and academic drive, students from the School of Computer Science and Engineering, Presidency University, embarked on a research-led journey under the University Research Experience Course (URE2001). Designed to bridge classroom concepts with real-world relevance, the course encouraged students to pursue research that is both socially significant and technologically sound.

The students met with Pro-vice Chancellor to present their research experiences. During the interactive session, students reflected on their journeys, sharing both their challenges and accomplishments. They extended heartfelt gratitude to Dr. Md. Sameeruddin Khan for his visionary leadership and constant encouragement, which they credited for shaping their academic perspectives. His commitment to research and student development left a lasting impression, inspiring the cohort to strive for greater heights in research and innovation.

Special acknowledgment was also given to Dr. Zafar Ali Khan N, Professor and HoD – CAI & ISE, whose mentorship was instrumental throughout the course. His active guidance, insightful reviews, and motivational support helped translate student ideas into well-executed projects, ensuring academic integrity and meaningful impact.

This initiative stands as a testament to Presidency University's commitment to fostering a culture of undergraduate research and collaborative learning. It not only nurtures technical skills but also instils confidence and a spirit of inquiry among students.

Student Projects under URE2001:

1. **Mr. Jahnu Tanai Kumar Hindupur** - Library Gate Register Application Software with Koha Integration
2. **Ms. Chandreyi Avijit Ghosh –** Automating Attendance Monitoring System Using Face Recognition
3. **Ms. Shreeraksha R. Adiga –** Bone Cancer Detection: Boosting Diagnostic Accuracy and Efficiency with CNNs
4. **Ms. Keerthana B**- Disease Detection in Chili Plant Leaves
5. **Ms. Sarah Farooqui** - Disease Diagnosis in Guava Leaves
6. **Ms. Divya V** - Early Detection of Autism Spectrum Disorder Using Machine Learning

UNWIND ZONE

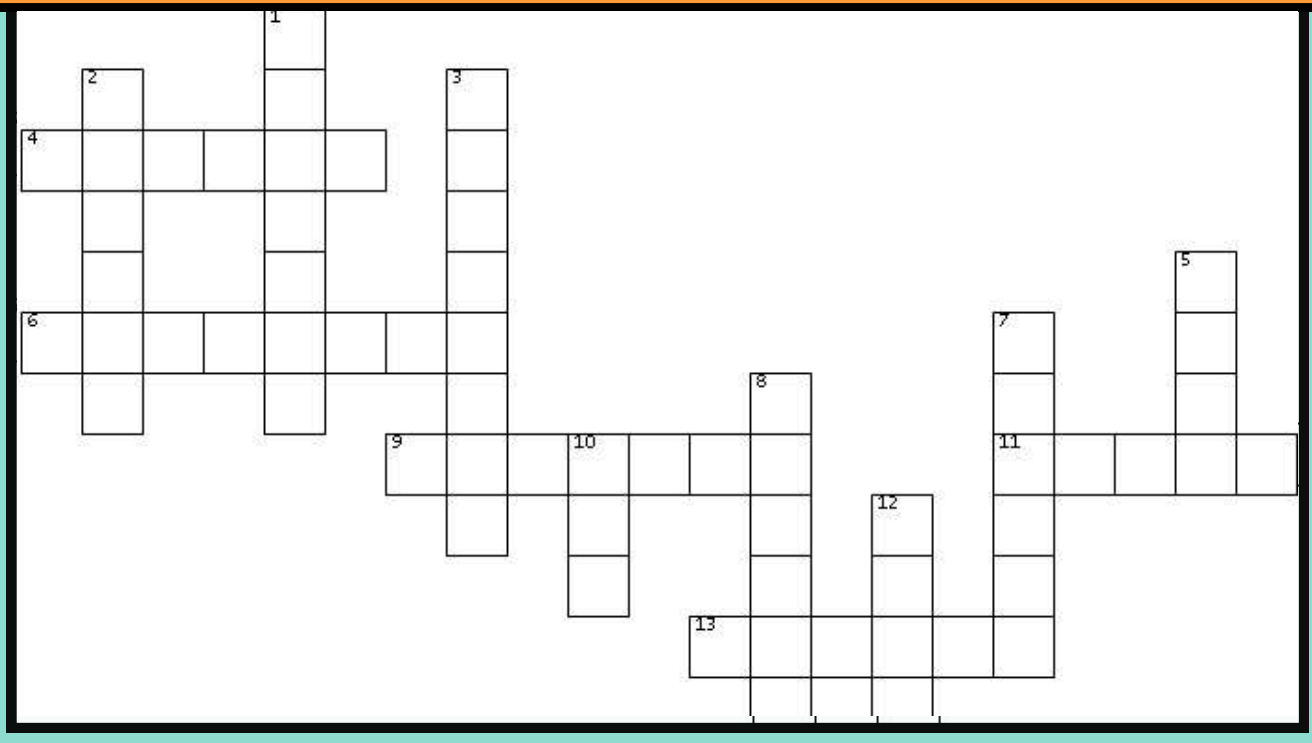
ACROSS

4. Opposite of local; IoT often connects to this kind of network.
6. Converts electrical signals into physical movement.
9. A term for a smart object connected to the internet (like in smart transportation).
11. Connection points in an IoT network.
13. Device that forwards data packets between networks.

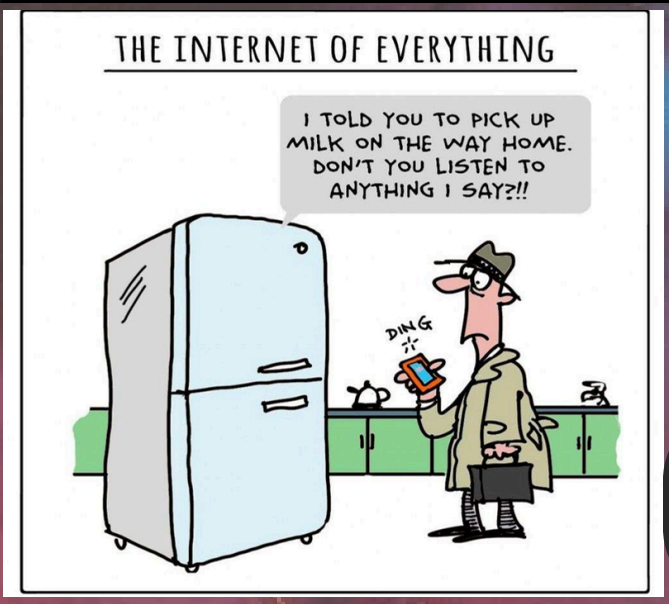
DOWN

1. Acts as a bridge between IoT devices and the cloud.
2. Gadget or tool connected to an IoT network.
3. The "I" in IoT.
5. Type of computing where data is processed close to the source.
7. Detects temperature, light, motion, etc. (already in previous clues, can be reused differently).
8. A hardware that detects and responds to input from the physical environment.
10. Technology acronym at the core of connected devices.
12. Lightweight messaging protocol used in IoT communication.

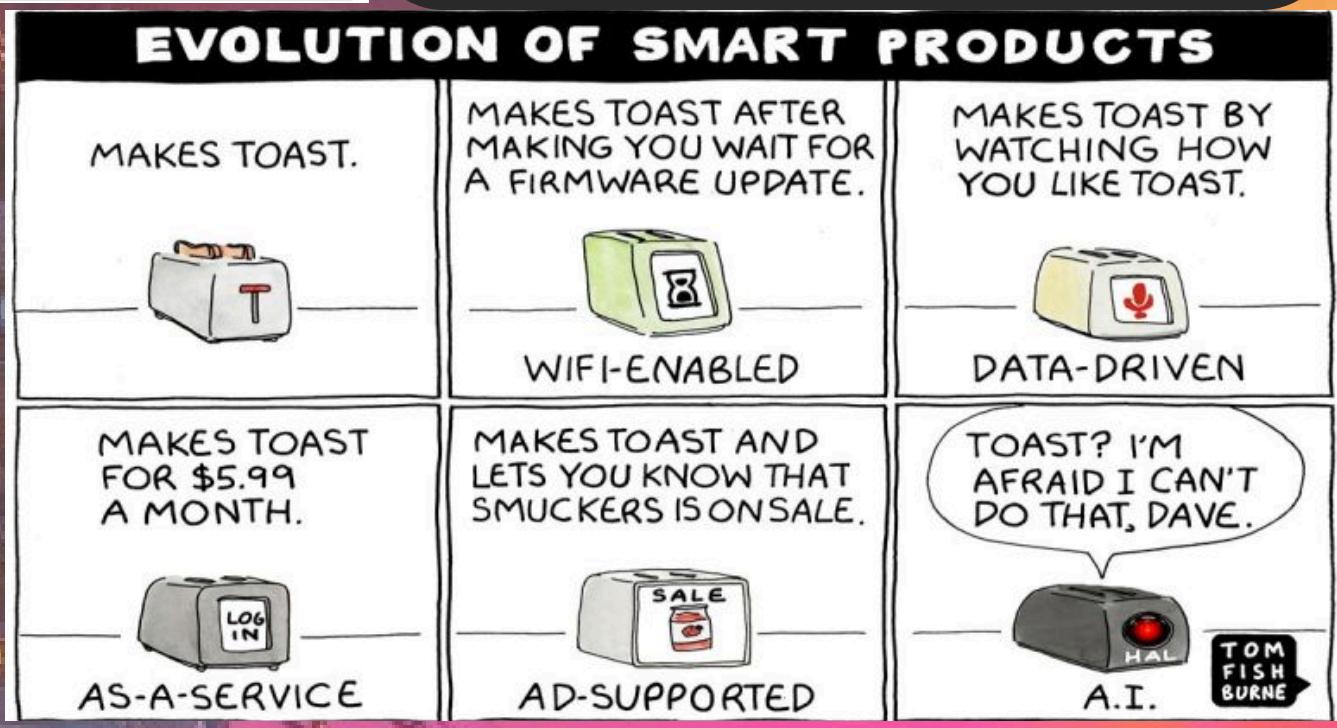
The Puzzle of Things



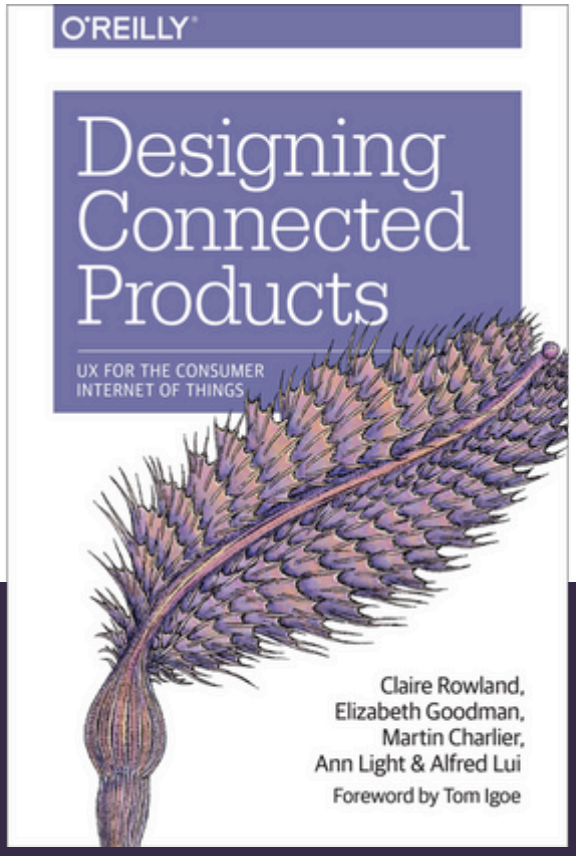
DEEP MEMEING : CTRL + ALT + DELIRIOUS



MEME GAME



Best Seller



Book Review

Designing Connected Products

Book Review: Designing Connected Products
Author: Claire Rowland, Elizabeth Goodman, Martin Charlier, Ann Light, and Alfred Lui
Genre: Technical
Rating: ★★★★★ (5/5)

In a world increasingly shaped by smart devices, Designing Connected Products serves as a practical guide for anyone building user-friendly Internet of Things (IoT) systems. The authors—experts in UX, design, and tech—offer deep insights into creating seamless interactions between physical devices and digital services.
This book addresses real-world challenges like device pairing, disconnection, security, and onboarding. What sets this book apart is its holistic approach—blending UX principles, technical limitations, and ecosystem thinking into a unified design strategy.

⭐ Why Read It?

- Learn how to design intuitive experiences for smart products
- Understand the complexities of IoT ecosystems
- Bridge the gap between tech and user needs

✅ Strengths

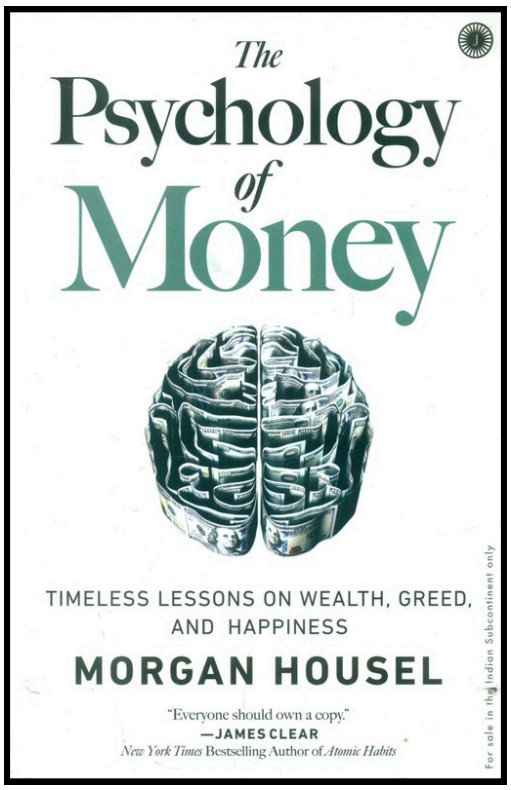
- Simple, practical advice that is easy to implement
- Filled with real-life examples and case studies
- Timeless design principles with real-world impact
- Strong focus on emotional intelligence and user experience

⚠️ Criticism & Limitations

- Some concepts (e.g., ecosystem control or seamless pairing) may feel complex for beginners
- A few examples may feel outdated due to rapid changes in IoT tech
- Emphasis on design may underplay hardware and development concerns

⭐ Final Verdict

A must-read for anyone looking to improve communication, product thinking, and user-centered design in the age of smart devices. Whether you're building for the home, city, or industrial IoT, this book offers timeless, actionable guidance.



THE PSYCHOLOGY OF MONEY

BOOK REVIEW: THE PSYCHOLOGY OF MONEY
AUTHOR: MORGAN HOUSEL
GENRE: NON-TECHNICAL
RATING: ★★★★★ (5/5)

In The Psychology of Money, Morgan Housel takes a refreshing approach to personal finance—not through complex formulas or investment strategies, but by exploring the emotional, psychological, and behavioral side of money. With short, engaging chapters, Housel shares timeless lessons on wealth, greed, risk, and happiness, grounded in human behavior rather than spreadsheets.

✅ Strengths

- Simple, relatable writing with universal appeal
- Filled with short, powerful stories and insights
- Focuses on long-term thinking, patience, and humility
- Encourages self-awareness over technical knowledge

⚠️ Criticism & Limitations

- Lacks detailed financial strategies or step-by-step guides
- Some ideas may feel repetitive across chapters
- Readers looking for investment formulas may be disappointed

What makes this book stand out is its storytelling style, which uses real-life anecdotes, historical examples, and behavioral science to explain why we often make irrational financial decisions. It's less about "how to get rich" and more about how to think about money wisely.

"**Doing well with money has little to do with how smart you are and a lot to do with how you behave.**"
– Morgan Housel

⭐ Final Verdict

The Psychology of Money is a must-read for anyone who earns, spends, or invests money which is just about everyone. It's not just a finance book; it's a life book. It teaches you that success with money is not about being brilliant, but about understanding yourself and behaving wisely over time.

THE WRAP UP

As we conclude this edition of The Communique, we turn our attention to the transformative journey of the Internet of Things (IoT). From revolutionizing smart cities and intelligent healthcare to enabling predictive maintenance and real-time analytics, IoT stands as a pillar of next-generation digital infrastructure.

Key Takeaways from This Edition

- Smart Sensing & Data-Driven Decisions – IoT is empowering systems with real-time sensing, enabling faster and more accurate decision-making across industries.
- Edge Computing & Decentralized Intelligence – With edge devices processing data closer to the source, IoT is reducing latency and enhancing responsiveness in mission-critical applications.
- IoT & Sustainability – From smart agriculture to efficient energy grids, IoT is fostering environmental stewardship through precision monitoring and automation.
- Cybersecurity in the Connected World – As more devices connect to the web, safeguarding IoT networks against vulnerabilities becomes a top priority.
- Human-Centric IoT Design – Beyond connectivity, IoT solutions must prioritize usability, accessibility, and ethical data handling to truly serve society.
- The Fusion of IoT with AI & Cloud – Integration with AI and cloud platforms is accelerating IoT's capabilities, enabling predictive insights, automation, and scalable solutions.

Final Thoughts

IoT is not just about connecting things—it's about sensing, understanding, and responding to the world in real time. As we stand at the crossroads of innovation, the future of IoT lies in responsible deployment, cross-disciplinary collaboration, and human-centered design.

"The real question isn't what IoT can do—but how we choose to use it." Thank you for being part of this journey into the evolving landscape of IoT. Stay connected, stay aware, and continue sensing the future.

THE COMMUNIQUE

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