

KL TIMES

The Kritilabs Newsletter



October 2024
ISSUE #3





GLOBAL HEADQUARTERS

#24A, SM Consortium,
Dr. VSI Estate, Phase II,
Thiruvannamiyur,
Chennai – 600 041,
Tamil Nadu, India.

PHONE

+91 89399 88031

EMAIL

contact@kritilabs.com

WEBSITE

www.kritilabs.com

www.kritilabs.us

www.kritilabs.ai

PUBLISHING TEAM

1. Dr. RV
2. Mr. Jason (HR)

ABOUT KRITILABS TECHNOLOGIES

Kritilabs is a global leader in Digital Transformation and innovatively powered by AI and IOT with large scale implementations across a wide spectrum of Industries, with more than 10 global patents, and with many awards and recognition from “Who’s Who” of Indian Industry including FICCI, CII, Nasscom, TIE Chennai, AIMO, Times of India et al.

Message from Co-Founders



Dear Kritians

What is an Anti-Fragile Organization?

I had to carry a Piano as check-in baggage on my recent trip to Sydney. It had a lot of stickers, saying ‘Fragile–Handle with care’. That set me thinking. What do we call items which we don’t label as fragile. Strong, Unbreakable, etc? Are they opposites of Fragile, While we tend to think of such characteristics for these items, actually they are not the opposite. They are only attributes on a range of

stress that can be applied before they break. Fragile is at one extreme. If on the other hand. we apply our thoughts to breaking or the weakening process under stress before ultimately breaking, then the opposite of Fragile would be that which strengthens/becomes stronger/harder under stress. Nassim Taleb, the famous author of Black Swan, coined the term Anti-Fragile as a property of an object or a person that emerges better if subject to stress or challenges. A prime example is from Greek Mythology of the Hydra that has many heads, If you chop off one, two heads grow in its place. Our body is also a great example, we stress our muscles during physical exercise to make them stronger, we inject germs/virus into our body to make it immune to diseases caused by these germs or virus. The more we think and solve problems, the better “our mind” becomes developed to do so.

Can we apply this to an organization?, to Kritilabs? What will it take to make Kritilabs Anti-Fragile. Which means. by definition Kritilabs is not fragile when faced with challenges, not only will it be able to withstand and overcome these challenges but emerge stronger at the end of it. Kritilabs experience during Covid and emerging stronger out of it, can be seen as being Anti-Fragile. We not only survived the challenges of a start-up when faced with the restrictions that Covid introduced but we emerged stronger and went on to bag the BPCL contract too, apart from other successes. But now we are facing a challenge of a new kind. As we grow in size, how do we achieve bigger/tougher targets. How do we create the structure and the process where different divisions work together to achieve something.? How do we overcome status-quo which will eventually lead to deterioration and fragility? How do we ensure when new situations arise new needs for technical solutions to new challenges/requirements come up, Kritilabs will find the strength to not only solve these but will come out stronger.

The Founders have laid a strong foundation and have guided the building of a resilient structure on it. However, this has to be constantly strengthened and made Anti-Fragile by everyone’s effort. If we watch a flight of birds flying in formation, we can see the effortless coordination. There is no leader or a CEO directing every bird what needs to be done when in flight. Perfect understanding and effective communication through individual actions enables the entire flock of birds flying in a beautiful formation.

Kritilabs will be flying much higher soon and it is everyone’s responsibility to see this happen sooner than later.

Best Wishes,
Dr. L. N. Rajaram



You all know that we are the dominant player in Oil and Gas space. Apart from IOCL, BPCL, we also work with Shell-MRPL, JioBP, Castrol et al in the Oil & Gas Space. Our Mining portfolio includes Hindustan Zinc and our dairy customer includes Sudha Dairy of Bihar and our Jewelry customer includes the likes of NAC Jewellers. Apart from these we have done several pilots in various areas including lock pilots for Amazon bags in the e-commerce space, Intellilock usage to enhance security for the Railway relay/signal box at Nungambakkam station etc. These have the potential to scale up huge, once they are signed up as orders. In Parallel, we are increasing our visibility and are participating in various conferences, events including the ODISHA MSME and Startup Innovation Conference as well as the Dairy Innovation Summit at Jaipur, Rajasthan. We are increasing our focus in the US and Mexican market and the presence of Jacob Shor in India during the early part of this month, is a step towards strengthening our North American focus. Lot more to come...

I take great pleasure in wishing you all, a very happy deepavali in advance.

Mr. Srikrishna V, CEO and Co-Founder

Message from the Editor



Dear Kritians

Before we blink, looks like another month has passed and we are in the last week of October and you are reading the 3rd edition of KL Times. We have been steadily improving with every month in terms of participation, quality of articles & content, reader engagement etc. This month also saw a lot of festivities with Navaratri Golu, Durga Pooja etc. Both festivals, while different in their specific customs, embody themes of spirituality, cultural heritage, and the celebration of divine feminine energy, symbolizing the victory of light over darkness and knowledge over ignorance.

During this month, It is with deep sorrow that we, at Kritilabs, paid tribute to one of the greatest visionaries of our time, Sir Ratan Tata. Sir Ratan Tata was more than an industrialist; he was a symbol of integrity, humility, and visionary leadership that transcended the boundaries of business. Under his stewardship, the Tata Group grew not just in size, but in its commitment to values that placed people before profits, ethics before expedience. His deep belief in philanthropy and nation-building led to an unprecedented era of social upliftment through initiatives in education, healthcare, rural development, and sustainable practices. Sir Ratan Tata’s legacy will not only be remembered for his business acumen but for the countless lives he touched and improved. He built institutions that will continue to shape India’s future for generations to come.

In October 2024, SpaceX achieved another significant feat in rocket reusability. The company successfully landed and returned a Falcon Heavy booster to the launchpad following a mission. This demonstrated further advancements in SpaceX’s pursuit of reducing spaceflight costs through reusability. By bringing back the rocket’s first stage and refurbishing it for future missions, SpaceX is continuing to save significant amounts of money (Hundreds of million dollars), which would otherwise be spent on building new boosters. The Falcon Heavy’s successful recovery and reuse capability bolster SpaceX’s plans for more frequent and cost-effective space missions, contributing to long-term goals like interplanetary travel and increasing the sustainability of space exploration. The achievement aligns with SpaceX’s broader strategy of revolutionizing spaceflight by making it as routine and reliable as air travel.

Kritilabs can draw valuable insights from Ratan Tata’s legacy and SpaceX’s rocket reusability to propel itself to the next level of growth and innovation. Long-term planning, emphasis on innovation, Corporate Social responsibility, Cost efficiency through reusability, Iterative Improvement & Rapid Prototyping and Bold goals to inspire the team (SpaceX wants to colonize Mars) are some key principles that we can integrate in our lives and aspire to “move to the next orbit” in terms of innovation, operational efficiency, and social impact, much like Ratan Tata and SpaceX have in their respective fields.

Wish you all a happy deepavali, in advance. Stay safe.

Cheers
Dr.RV
Editor, KL Times

Memories

The Pen that Writes Your Life Story Must be Held in Your Own Hand





1. Publishing in International Journal IJTCE (www.ijitce.co.uk)

Kritilabs has been encouraging all the staff to express their thought leadership and ideas to the industry by participating in conferences, events, workshops, writing journal articles, publishing conference papers, taking higher education courses etc... Mr. Anantharaman, Head of Mechanical function came out with his article on "OTP BASED IOT DOOR LOCKING SYSTEM" and it got published in the International Journal www.ijitce.co.uk which is a peer reviewed international journal. The article can be viewed at IJTCE_Sep2024.pdf

INTERNATIONAL JOURNAL OF INNOVATIVE TECHNOLOGY AND CREATIVE ENGINEERING (IJTCE-2024-0711)
Vol. 14 No.9 Sep-2024

OTP BASED IOT DOOR LOCKING SYSTEM
ANANTHARAMAN
MECHANICAL DEPARTMENT KRITILABS TECHNOLOGIES PVT LTD
10/10,INDUSTRIAL ESTATE PHASE 2, DINDIGULNAMBARA,
CHENNAI-600031, TAMIL NADU, INDIA.

ABSTRACT— In the busy day ordinary security has grown to be a top priority, people now want to feel secure at home, at work, and globally. The concept grew to improve and advance the safety and security of people. This article presents a digital-based IoT door security system using a mobile app to generate and verify one-time passwords (OTPs) for door access. The system includes an IoT-based door lock, a mobile app, and a server. The system is designed to be secure, reliable, and easy to use. The system is designed to be secure, reliable, and easy to use. The system is designed to be secure, reliable, and easy to use.

1. INTRODUCTION
The increase in smartphone usage has led to various new security problems, including challenges related to access in emergencies, home automation, and theft. The traditional physical keys are being replaced by digital keys, which are more secure and convenient. However, due to their affordability and convenience, passwords are commonly used in systems that also incorporate RFID or biometric authentication. The reliance on passwords is problematic because they are vulnerable to phishing, keylogging, and other security threats. This article presents a digital-based IoT door security system that addresses these challenges by using one-time passwords (OTPs) for door access.

2. SYSTEM ARCHITECTURE
The system architecture consists of three main components: a mobile app, a server, and an IoT-based door lock. The mobile app is used to generate and verify OTPs. The server stores the OTPs and manages the door lock. The IoT-based door lock is connected to the server and can be controlled via the mobile app.

3. WORKING PRINCIPLE
The system works as follows: 1. The user opens the mobile app and requests an OTP. 2. The server generates a unique OTP and sends it to the mobile app. 3. The user enters the OTP on the door lock. 4. The door lock verifies the OTP and unlocks the door if it is correct. 5. The door lock sends a confirmation message to the server.

4. CONCLUSION
This article presents a digital-based IoT door security system that uses one-time passwords (OTPs) for door access. The system is designed to be secure, reliable, and easy to use. The system is designed to be secure, reliable, and easy to use.

INTERNATIONAL JOURNAL OF INNOVATIVE TECHNOLOGY AND CREATIVE ENGINEERING (IJTCE-2024-0711)
Vol. 14 No.9 Sep-2024

IV. DESIGN AND IMPLEMENTATION OF A DIGITAL DOOR LOCK

The article describes the design and implementation of a digital door lock system. It includes a block diagram of the system architecture and a flowchart of the working principle.

Block Diagram: Shows the interaction between the Mobile App, Server, and IoT-based Door Lock.

Flow Chart: Illustrates the process of generating and verifying an OTP for door access.

V. WORKING PRINCIPLE
The article explains the working principle of the digital door lock system. It details how the mobile app generates an OTP, how the server manages the OTPs, and how the door lock verifies the OTP to unlock the door.

VI. OUTCOME
The digital door lock system offers improved security compared to traditional keys, providing a higher level of protection. The system is easy to use and can be controlled via a mobile app. The system is designed to be secure, reliable, and easy to use.

INTERNATIONAL JOURNAL OF INNOVATIVE TECHNOLOGY AND CREATIVE ENGINEERING (IJTCE-2024-0711)
Vol. 14 No.9 Sep-2024

B. Enhanced Security: IoT locks often come with advanced security features such as real-time monitoring, access logs, and integration with other smart home devices. This allows users to monitor access and detect any unusual activity immediately.

C. Integration with Smart Home Systems: IoT locks can integrate with other smart home devices, such as security cameras, alarms, and lighting systems. For example, you can set up automated routines where opening the door triggers other smart devices to act, such as turning on lights or opening an alarm.

D. Access Control Management: IoT locks can provide detailed logs of who accessed the door and when. This can be used for auditing and security purposes. You can create temporary access codes for guests or service providers and easily revoke access when it's no longer needed.

E. Data and Analytics: IoT locks can provide detailed logs of who accessed the door and when. This can be used for auditing and security purposes. You can create temporary access codes for guests or service providers and easily revoke access when it's no longer needed.

F. Automated Locking: Many IoT locks can be programmed to lock automatically at certain times or under specific conditions, providing an additional layer of security.

REFERENCES
[1] Mohan, Agastya "Digital Electronic Lock Based On Bluetooth Based OTP System".
[2] International Journal of Innovative Technology and Creative Engineering (IJTCE), Volume 14, No. 9, Sep-2024, pp. 102-107.
[3] Smart Locks: A Guide to the Latest Smart Lock Technology.
[4] Smart Locks: A Guide to the Latest Smart Lock Technology.
[5] Smart Locks: A Guide to the Latest Smart Lock Technology.
[6] Smart Locks: A Guide to the Latest Smart Lock Technology.
[7] Smart Locks: A Guide to the Latest Smart Lock Technology.

2. Railway Review magazine (www.railwaysreview.com)

Railways Review Journal is dedicated journal on railway engineering published by Mr. Partha Basistha, based on his association with Indian and metro Railway sector for past twenty five years. The business information users are the Indian and Metro railway production and maintenance units, private railway OEM's. Some of the prominent clients/ business information users of the journal includes, Delhi Metro, Kolkata and Mumbai Metro Railways, Eastern, South Eastern, South Central Railways, CLW, MCF, RCF, Alstom, Texmaco Engineering Works, Jupiter, Titagarh Rail, NTPC, SAIL, Mormagao Port, Wabtech, ABB, Faivley, JSTI, CG, Medha Servo Drives, Hind Rectifiers, Knorr Bremse, Electrotherm, Trolex India among others. In the recent issue (June-July-Aug 2024) of the Railways Review Magazine, Kritilabs has been featured in pages 8 and 9 as well as how Kritilab's Intellilock™ enhances security for Southern Railways' Signal/Relay Box, the implementation at Nungambakkam Station has been covered in details in pages 21,22 and 23.

Kritilabs Technologies
KRITILABS TECHNOLOGIES

YOUR DIGITAL TRANSFORMATION PARTNER

10 Patents in India and US
\$150 Billion in Revenue managed per year
24x7 Customer & Technical support
7 Million+ Data operations/day
Vertical integration from R&D to manufacturing

CERTIFIED BY: ISO 9001, ISO 27001, CE, ATEX, IEC 61508

Website: www.kritilabs.com | Contact: info@kritilabs.com

AIoT PLATFORM

About Us
Kritilabs Technologies specializes in end-to-end digital transformation of operations. We are a leading provider of AIoT solutions. We are a leading provider of AIoT solutions.

Solutions & Services
Smart Transportation: AIoT-based solutions for smart transportation, including traffic management and vehicle tracking.
Smart Manufacturing: AIoT-based solutions for smart manufacturing, including predictive maintenance and quality control.
Smart Agriculture: AIoT-based solutions for smart agriculture, including precision farming and crop monitoring.
Smart Cities: AIoT-based solutions for smart cities, including smart parking and waste management.

Industries We Serve
We serve various industries including Manufacturing, Logistics, Healthcare, and Smart Cities.

IMS Application for AIoT Services
We provide IMS applications for various AIoT services, including Smart Transportation, Smart Manufacturing, Smart Agriculture, and Smart Cities.

48B Corporation, 10, Vela Estate, Phase 2A, Thiruvananthapuram, Tamil Nadu - 695001

Special Report

Kritilab's IntelliLock™ enhances security for Southern Railways' Signal/Relay Boxes

Railways Review Journal takes a look at the key deliverables the solution could render through the first secure transportation solution to Southern Railway. This has enabled the signal relay boxes, dense operational transparency in maintenance and digital relay boxes for safer running of trains.

Kritilab Technologies high-end digital solutions for enhanced security and operational efficiency. According to the company through digital transformation solutions, Smart Seal and IntelliLock is an innovative digital platform has been deployed in the US and India and combine

RAILWAYS REVIEW, JUNE - AUGUST 2024

Special Report

AI and IoT provide a powerful combination of advanced technologies that can be leveraged for deployment in different scenarios.

Smart Seal, an innovative E-card designed for robust security and intelligent tracking. With an unique RFID tag, the solution only upon locking. E-Data is another digital security solution. An advanced digital security solution equipped with RFID reading and wireless data transmission capabilities.

Kritilab's IntelliLock Analytics, using Artificial Intelligence, AI and IoT, enhances existing video surveillance cameras and powered back for actionable intelligence. By utilizing AI and deep learning algorithms, IntelliLock detects and analyzes objects in video surveillance feeds, identifying unusual activities, and classifying them for intelligent analytics, including search, alerting, and data visualization. The multi-various solutions offer an integrated, security and tracking across various domains, including logistics, and manufacturing.

Through implementation of IntelliLock, the company has successfully completed a pilot of a secure (POC) for Southern Railway on 10 Digital Relay Boxes (DRB). This initiative is a significant step towards enhancing the security and operational integrity of critical

RAILWAYS REVIEW, JUNE - AUGUST 2024

Special Report

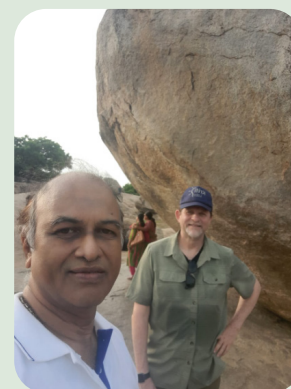
Other benefits include instant alerts in case of any unauthorized access attempts or tampering. IntelliLock™ is a state-of-the-art digital lock system, Southern Railway is implementing it to enhance security in India, ensuring that their signal and relay boxes remain protected against unauthorized access and tampering.

Conclusion
The successful implementation of IntelliLock™ for Southern

RAILWAYS REVIEW, JUNE - AUGUST 2024

3. Jacob Shor, USA's Visit to India

Jacob Shor is a seasoned veteran (former entrepreneur) who has deep experience in USA, Mexican, Chinese, and Middle East markets. He visited kritilabs India and had some intense discussions with most of the teams including products and engineering team, production, sales & marketing, HR, delivery, Support, Finance etc. During the intervening Sunday, Dr.RV took him to Dakshinachitra Museum and Cultural center as well as a tour of Mahabalipuram Monuments. Some of the photos attached can be seen.



4. Kritilabs will be participating in the Government of India and Government of Odisha jointly organized "MSME & Startup Innovation Summit – 4th Edition at Vivanta Bhubaneswar on 20th November 2024. Odisha CM will be the Chief Guest at this event.

5. Kritilabs will be participating in the 4th Dairy Innovation Summit at Jaipur, planned for Nov 21st and 22nd. where the entire national level dairy industry folks are congregating. Hope you all are aware that Bihar's Sudha Dairy is already a customer of Kritilabs and we have done lot of spade work with TN's Aavin as well as with few other state Dairies and Private Dairy Companies.

6. Kritilabs Presents IoT Innovation to IGCAR Incubation Team

Indira Gandhi Centre for Atomic Research [IGCAR], the second largest establishment of the Department of Atomic Energy next to Bhabha Atomic Research Centre, and is set up at Kalpakkam, 80 KMs south of Chennai. IGCAR is a strategic partner to Kritilabs and we have been working with IGCAR for an year now.

On October 23, 2024, Rajavendhan from Kritilabs Technologies presented their innovative pulsating sensor-based liquid level measurement system to the IGCAR Incubation Committee. The system is designed to provide highly precise, scalable, and robust monitoring of industrial liquids such as diesel and transformer oil, meeting the needs of sectors like oil & gas and power distribution.

Key Features of the Product

- **Advanced Sensing Technology:** Uses high signal-to-noise ratio for accurate, real-time monitoring of liquid levels.
- **Multi-Liquid Compatibility:** Capable of measuring various fluids with differing dielectric properties, including flammable fuels.
- **Corrosion-Resistant Build:** Designed with durable materials to operate in harsh conditions, such as high humidity and pressure environments.
- **Scalable and Customizable Design:** Easily adaptable for different industrial applications, supporting various tank sizes and liquid types.
- **User-Friendly Interfaces:** Includes intuitive controls for easy operation and maintenance by end-users.

Milestones Achieved During the Incubation Program

1. **Reconstruction of Core Components:** Kritilabs successfully redeveloped the parallel plate capacitor assembly and sensing modules to enhance performance.
2. **Integration of Custom 3D-Printed Components:** Special washers and holders were introduced to optimize oil flow and system stability.
3. **Diesel Measurement Calibration:** Iterative testing ensured high sensitivity and precision for diesel-level monitoring.
4. **Environmental Durability and Hardware Redesign:** Compact, field-ready hardware was developed and tested to ensure reliability under challenging conditions.
5. **Multi-Liquid Mode Implementation:** The system was fine-tuned to measure multiple liquid types accurately, increasing its industrial applicability.

Future Plans and Incubation Goals

Kritilabs will collaborate with IGCAR to achieve full industrial certification by leveraging the institute's testing facilities, financial support, and expert guidance. The product will undergo further field trials to ensure compliance with industry standards. The goal is to develop a market-ready, IoT-enabled solution that caters to multiple industries and addresses the challenges associated with asset management and process monitoring.

This strategic partnership reflects IGCAR's commitment to fostering technological innovation through industry collaboration. With Kritilabs managing USD 100 billion worth of assets across 150+ cities, this product is poised to make a significant impact in the industrial IoT space.





Hiring through Campus Interviews:

We took part in a Virtual campus drive facilitated by Dhannish Ahmed College of Engineering, towards hiring interns for the AIML Team.

Vidushi, Tamilmaran and Poornima had conducted the drive and made it a success.

Employee Engagement Events:

The Ayudha pooja celebrations held at all KritiLabs Chennai facilities - SM consortium, Mechanical unit and Electronics Unit.

Golu at SM consortium
Ground floor



Pooja at SM consortium



Pooja at the Mechanical Unit



Pooja at Electronics Building



POSH Compliance initiative:

The POSH Act, or the Prevention of Sexual Harassment (POSH) Act, is an Indian law enacted in 2013 to address and prevent sexual harassment of women in the workplace.

This Act provides a legal framework for the protection of women from sexual harassment at their place of work and aims to create a safe, respectful, and secure working environment.

The POSH Act is a crucial step toward gender equality and safety in Indian workplaces, promoting dignity and respect for women at work. It aligns with the Indian Constitution's vision of providing a safe environment for all citizens, especially women, in public and private spheres.

By implementation of this act, we have aimed to make the workplace safer for Women and Also have become POSH compliant.



Customer support is the backbone of any successful business. A strong support team not only resolves issues but also fosters customer loyalty and enhances brand reputation and ultimately, our business growth. This article highlights recent achievements within our customer support team.

Over the years, we've implemented numerous changes to ensure our customers receive the best possible service from us.

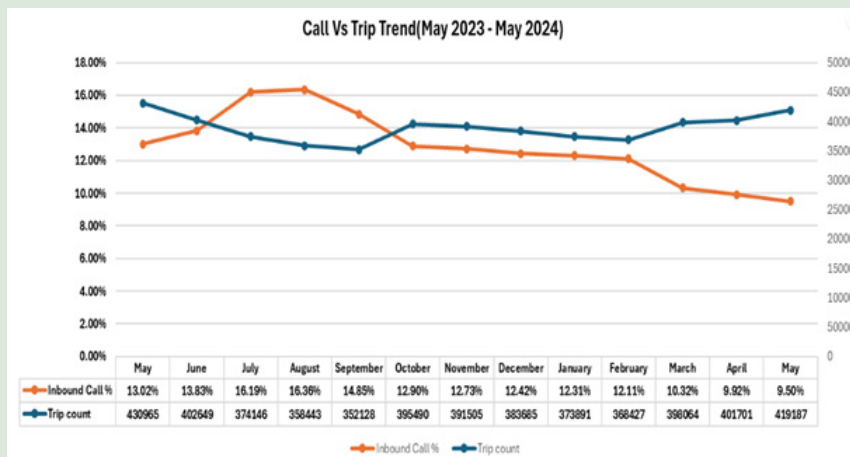
We offer 24*7 support to our customers with our associates working from the comfort of their own homes. We offer support via phone email and tickets, with phone being our main method of contact.

We manage approximately 2,000 to 3,000 calls daily for both IOCL and BPCL, along with around 200 to 400 emails. Additionally, we process about 450 to 700 tickets to support our field executives and make 100 to 200 outbound calls each day. We achieve first-call resolutions for 80% of inquiries and are actively working to enhance this by addressing user behaviour and other challenges.

In the past, we provided phone support without language segregation or an IVR system, leading to many dropped calls when customers were connected to associates who didn't speak their native language. To address this issue, we implemented an IVR system that combines our existing feature of "OTP via SMS" as "OTP via IVR". We offer support in six languages—English, Hindi, Tamil, Malayalam, Telugu, and Kannada—through our IVR system.

This change has led to a reduction in call volumes by 2-6%(400-600 calls in a day), as many customers can now obtain their OTP through the IVR system. Additionally, more calls are being resolved on the first attempt, as customers can connect with associates who speak their language via the IVR options. This resulted in further reduction of 100 – 200 calls in a day.

Introduction of IVR resulted in reduced resolution time (Average resolution time 7.00 Mins to 4.5 mins) and low waiting time in queue (0-45 secs, rare cases up to 1-2 minutes).



This allowed us to manage the onboarding of a new client (BPCL) by utilizing existing resources, making only minimal additional hires, and employing a similar IVR system to support the customer's preferred language.

We regularly connect with our repeat customers to identify their challenges and help them use our products and features more effectively, leading to a reduction in the number of support calls.

We recognized that our field executives were struggling to obtain quick resolutions from various regions, given that we have over 100 terminal locations in IOCL. To improve support, we leveraged our internal tools (the RO support page and complaint report page) more effectively, as they function similarly to a ticketing system.

Here are some best practices we follow:

1. Empathetic Communication - Listen Actively and Empathy: Encouraging team members to listen carefully to customers. Display empathy by understanding customer feeling and frustrations as this builds rapport and helps identify the root of the issue and provide quick solution.
2. Training - Product Knowledge: Ensuring our team has a deep understanding of our products. Regular training sessions has been conducted to keep everyone up to date. Updates are post-ed via WhatsApp using a common group.
3. Utilize internal tools/Technology: We utilised our internal tools (RO support page & complaint report page) to greater effect to provide an effective support to our field executives across various locations in India.
4. Standard Operating Procedures (SOPs): Setting clear guidelines for common scenarios and necessary access to the associates increased the consistency and efficiency in handling customer inquiries.
5. Escalation Procedures: Set a clear escalation mechanism within the team to escalate issues that require higher-level intervention.
6. Encouraging Feedback: Encouraging team members to share insights and suggestions for improving customer interactions or our internal tool or process improvement.
7. Regular internal call audit: We routinely audit the calls managed by our associates and offer feedback to enhance customer handling and expedite solutions by identifying key issues. Additionally, we monitor for any behavioural concerns or process gaps that can be addressed.

Language diversity: Our team boasts a rich diversity of languages, with many associates being bilingual or multilingual. Such as,

English	Hindi	Tamil	Malayalam	Kannada	Telugu	Bengali	Urdu	Marathi	Gujarathi
---------	-------	-------	-----------	---------	--------	---------	------	---------	-----------

Women Empowerment:

Kritilabs champions women's empowerment by showcasing that 50% of our customer support team is made up of women.

Initiatives in progress to strengthen the team further

Support Tools: We are exploring multiple options to bring in a robust helpdesk system to track inquiries, manage tickets, and streamline workflows without further cost implications.

Conclusion

An effective customer support team is crucial for maintaining customer satisfaction and loyalty. By implementing these best practices, you can create a supportive environment that not only addresses customer issues but also turns challenges into opportunities for growth and improvement.

Looking Ahead

As we recall our achievements, we must remember that our success relies on the collaboration of all departments to enhance the customer experience and drive overall business success. Let's dedicate ourselves to building stronger relationships between departments. By working together, we can enhance our achievements and deliver an outstanding customer experience that fosters loyalty and drives growth. Thank you for your ongoing support in this important effort!

– By Sam Richards – CS Manager



Testimonies from the team



Over the past year, my journey at Kritilabs Technologies has been transformative. This role has sharpened my problem-solving skills and honed my communication, boosting my confidence immensely. Working with such a supportive team and all the team leads has been invaluable. I've gained new insights and skills that have enhanced my problem-solving abilities and communication skills. These experiences have not only helped me excel in my role but have also laid a strong foundation for my career development. I truly feel fortunate to be part of Kritilabs Technologies and look forward to continuing to contribute to our team's success.

– **Vinay Rao/CS associate**

The past year working with Kritilabs Technologies has brought a change in my outlook, beliefs and even my work ethics. This last year with the organization has been quite fruitful as I have been part of emerging technology which is intellectually stimulating and helps in sharpening my skill sets. Assuming responsibilities such as overcoming intricate obstacles and collaborating with great people, every encounter assisted me in increasing my scale. I have developed much stronger problem-solving skills, and a more comprehensive understanding of how technology will drastically transform the world. This role also gives me a great perspective on communication and leadership, hence makes me effective in working within teams and managing larger roles. On a personal level, it is the working culture at Kritilabs that enhances my self-confidence and motivation. I was able to make the most of my job and at the same time venture into areas of my interests and work on projects I love. The first year really set a very strong foundation in my career, and more importantly, I am eager to follow this path, with determination, wherever it might lead me. – **Payeel Das/CS associate**



The past year working with Kritilabs Technologies has brought a lot of changes in my life. I am very happy to work with kritilabs . Because this job as brought a lot of changes in my career. This job helped me in financially. By this job i got respect in society and specially for girls this job is very safe. I have developed much stronger problem-solving skills, and a more comprehensive understanding of how technology will drastically transform the world. I have developed my communication skills. In Kritilabs Technologies the team members and team leaders are very supportive. On a personal level, it is the working culture at Kritilabs

that enhances my self-confidence and motivation. i think Kritilabs is very strong foundation in my career. So I am feeling very happy to be a part of this company. – **Deepika/CS associate**

First job always plays an prominent role in every ones life as of mine. Its been a professional and personal transformation that changed my life as being into this company I gained an experience in communication and get to know more about commitment and also I got a chance to confront my ideas. Got to know the importance and value of time & love. being a work from home I got the care when needed from family, as I feel there should be growth for talent despite the designation nor with experience purely on talent as to not feel stuck. despite all I learnt a chapter in a book of life & will be always close and special to heart. –

Suseshiniya ved/CS associate



Working at kritilabs and technologies pvt ltd has been a transformative experience for me. Personally, I've gained more confidence in handling projects independently. The exposure to cutting-edge technologies has also improved my technical skills, which is crucial for my career growth. The team environment and leadership have been incredibly supportive, allowing me to take on leadership responsibilities that have prepared me for future management roles.” –**Surendar/CS-Team Lead**





I'm grateful to have been a part of this company since 2021. My experience here has been invaluable, teaching me essential skills like effective management, communication, and teamwork. These skills have significantly contributed to my personal growth and career advancement. I've had the pleasure of connecting with numerous colleagues across various states, witnessing exceptional management quality. – **Hemarathinam/CS Team lead**

Customer support has always been my cup of tea and this WFH offer was like a cherry on the cake. Kritilabs has helped me achieve my goals and take care of my own self independently. As a married girl, I'm able to manage my household consequently upgrading my career which is the biggest flex other women long for. My job is sufficient for me to take care of my own needs and I'm very grateful for it. Thank you Kritilabs for recruiting me and providing me with a beautiful opportunity.

– **Hazra/CS associate**



As a fresher I need a platform, where I can prove myself show my skills and Kritilabs gives me that opportunity. After joining Kritilabs I improve my skills which help me to solve problems on my future and improve my personality. I feel proud to be a part of Kritilabs . All colleagues, senior's and Team leaders are friendly and cooperative . Overall company culture is very good. – **Jiban/CS associate**

I am thankful to you for giving me this opportunity, this job help me a lot , I have improved my communication skills also develop problem solving skills, which will obviously help in growing professionally and personally and also learned honesty and dedication, which is help to make me feel confident, and also make me financially independent, so love this opportunity and love to explore more and want more opportunities with help of u and our helpful TLs. – **Pooja/CS associate**



Improved communication skills, developed patience with The customer on call, we Improved Problem Solving, Increased service knowledge Of Company, Built strong customer relationships, We Provided to customer satisfaction and loyalty, Time Management. After Joining This Company, we know about IOCL and BPCL process, how process is going and how locks are opening by customer, dealers etc... With team support we are learning day by day new ways to solve the issues with in less time – **Raviteja/CS associate**

My four years at Kritilabs Technologies have been transformative for my personal and professional growth. Working with a talented team on innovative technology solutions has significantly enhanced my technical expertise and problem-solving skills. I've learned to communicate and lead effectively while embracing new challenges, thanks to the supportive work culture. The organization's commitment to innovation has allowed me to explore market trends, solidifying my role as a well-rounded professional. I'm grateful for this enriching experience and look forward to contributing to Kritilabs's continued success. – **Varun/CS associate**



Being part of this organization has been instrumental in developing my skills in data analysis and client management. The regular training sessions have helped me stay ahead in my field, and the collaborative environment has boosted my problem-solving abilities. Personally, the mentorship I've received has improved my confidence and helped me think strategically about my career. – **Rajlakshmi/CS associate**



In this job, I have grown significantly in terms of both technical proficiency and personal development. I've been given the opportunity to work on innovative projects that align with my long-term career goals. The supportive atmosphere has also helped me improve my skills. – **Mobeena/CS associate**

I began my career at Kriti as a helpdesk executive, transitioning from an administrative background, which initially made me apprehensive about my performance. However, after a few months, I was promoted to trainer, significantly enhancing my personal and professional growth. Participating in the company's recruitment programs helped me connect with others despite my introverted nature, allowing me to integrate more into society. As a trainer, staying current with the latest processes and programs fostered a mindset focused on continuous learning. Kriti provided me with opportunities to take on dual responsibilities, leading to transformative changes in my life. I initially struggled with leadership and teaching, but now I feel confident in my abilities. Having a job is crucial for financial independence, especially for women like me, as it allows us to make our own choices without relying on others. This experience has helped me set both professional and personal goals. Additionally, the work-from-home environment has improved my work-life balance and enhanced my productivity and time management. Overall, I am very satisfied with my professional journey. – **Arathy/CS – Team Lead**



I was looking for a job when I came across a company that caught my interest. Eventually, I joined the company, and after starting, I learned much more about it. I received a lot of support, and the company turned out to be excellent. The manager and team leaders are incredibly supportive, providing clear guidance and explanations, which has been helpful for me. – **Akram/CS associate**



New Ideas by Customer support executive

In a research recently conducted by (UNFPA) we got to know the percentage of Senior citizens were 13.1% in India and that can be raised to 41% till 2040. In contrast to USA with 16.8%.As the world progresses through modernization, senior citizens face significant challenges in prioritizing their well-being among them utmost challenges they are facing are mostly Health issues,Financial insecurities,Loss of care,Living alone,etc.

Many experience isolation as their closed-ones live far away due to work pressures, which can exacerbate feelings of disconnection. Additionally, long distances and the busy schedules of family members often hinder regular visits and support. These challenges highlight the urgent need for community initiatives and resources that address the social and financial well-being of seniors, ensuring they receive the care and companionship they deserve.

In response to the pressing needs of senior citizens, we are proud to introduce an innovative solution called KritiSOS. This initiative is designed to provide round-the-clock support for seniors, empowering them to access assistance without relying on third-party intervention. KritiSOS aims to enhance their sense of safety and security, ensuring they feel supported in every possible way. This innovative approach addresses the unique challenges faced by the elderly, fostering independence while promoting their overall well-being.



KritiSOS is designed for accessibility by individuals of all ages, including those with limited education. Its unique feature lies in its ability to serve as a fashion statement, available in various forms such as rings, bracelets, and necklaces. This wearable technology operates with a simple push button, dropdown sensor, or voice command, all of which can be customized by the user.

KritiSOS includes essential features such as live tracking and geolocation access. In an emergency, users can easily activate the device by dropping it, pressing a button, or using a voice command. Upon activation, KritiSOS promptly sends alerts to local police, hospitals, ambulances, designated personal contacts, and Kriti customer support, which is available 24/7.

This comprehensive approach ensures immediate assistance, enhancing the safety and security of its users. In addition to its core functionalities, KritiSOS allows designated personal contacts to monitor the individual's location and tracking, even from a distance. The device is compatible with various operating systems, including iOS and Android, and operates seamlessly on networks ranging from LTE to 5G. Furthermore, all tracking data is securely recorded on the Kriti server, providing a comprehensive log of daily movements. In case of an emergency, this recorded information can be accessed to facilitate timely and effective response efforts. This feature enhances the overall safety and security of users, ensuring peace of mind for both the individuals and their loved ones.

KritiSOS distinguishes itself as not only a fashion statement but also a reliable safety device, combining aesthetics with essential functionality. Its easily accessible design, straightforward operation, and immediate alerting features ensure that users can swiftly reach out for help. The device is capable of notifying not only individuals but also local law enforcement, healthcare. Kriti Labs has established itself as a leader in IT security, evidenced by successful partnerships with organizations such as Railways, Bharat Petroleum, and Indian Oil. The company has consistently demonstrated its commitment to safeguarding assets through innovative solutions, both in India and abroad, including the United States.

In a rapidly evolving world, Kriti Labs remains poised to excel in a competitive landscape with its forward-thinking ideas. The introduction of KritiSOS reflects this innovative spirit, born from a vision of enhancing personal safety and security. This new addition to our portfolio underscores our dedication to providing effective and reliable solutions for the well-being of individuals, ensuring peace of mind for users and their loved ones.

We are eager to transform the KritiSOS concept into a tangible product in the near future. The recognition and standard that Kriti Labs has established globally provide a strong foundation for a successful launch. Our unwavering commitment to innovation and responsiveness to user needs positions us uniquely in the market.

At Kriti Labs, we prioritize our users with genuine care, viewing them as an extension of our own family. This ethos drives us to create solutions that truly resonate with the needs of individuals. As we move forward with this initiative, we are confident that KritiSOS will not only enhance personal safety but also embody the values of compassion and reliability that our brand represents. We look forward to bringing this vital product to life, reinforcing our mission to serve and protect our community.

SUSESHINIYA VED.M

CL0701

suseshiniyaved2822@gmail.com



News

Plan on installing a new Hydraulic Power Pack for the Hydraulic Press, as well as the Leveling of Shackle Manufacturing Process.

Achievements

Started and completed manufacturing of BPCL Lock Protective Cover - Lock Seal Sub assembly - 2500 Nos.

Significant events

The mechanical unit was submerged in rain water, but our team was working. Brilliant and hardworking safeguard the machinery's and equipment's, and immediately began production on the same day.

Projects

IOCL Lubricants Trucks Locks and Single locking systems Dismantling 50 Vehicles.

New Initiatives

New Enclosures designed by mechanical unit for ILB Locks.

Policies

Follow the department processes through ERP System Implementation, and the Mechanical Unit has provided suggestions for these systems.

Procedures

Day-to-day productivity starts with the daily opening meeting. Followed by the Job Card instructions and design data. And at the end of the meeting, the job cards for the planned and achieved KPI data were collected.

Team building

The entire mechanical unit's flood relief procedure was finished by the Total Mechanical Unit Team, and they promptly and economically began the project to manufacture mechanical components.





Memories



Kriti Labs Technologies
4,269 followers
1mo • 🌐

+ Follow

📌 Securing Your Assets: What's Most Important to You? 📌

When it comes to secure transportation solutions, different features matter to different businesses. We want to know what's most critical for you. Cast your vote and let us know which feature you prioritize when choosing a secure transportation solution!

#SecuritySolutions #TransportationSecurity #IoT #Innovation #technology #AI #securetransportation #transportation

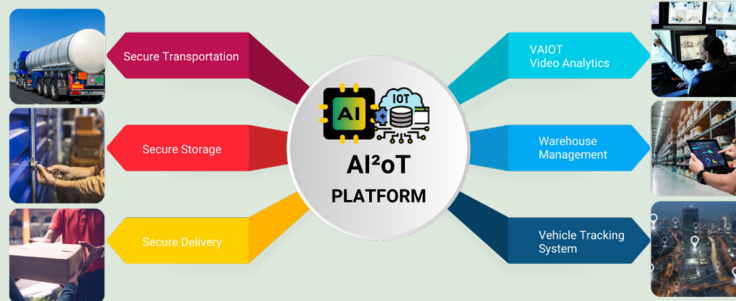
What is the most critical feature you consider when choosing a secure transportation solution?

The author can see how you vote. [Learn more](#)

Keyless/ OTP-based security	60%
Realtime alerts and monitoring	30%
User-friendly app	0%
Tamper resistance	10%



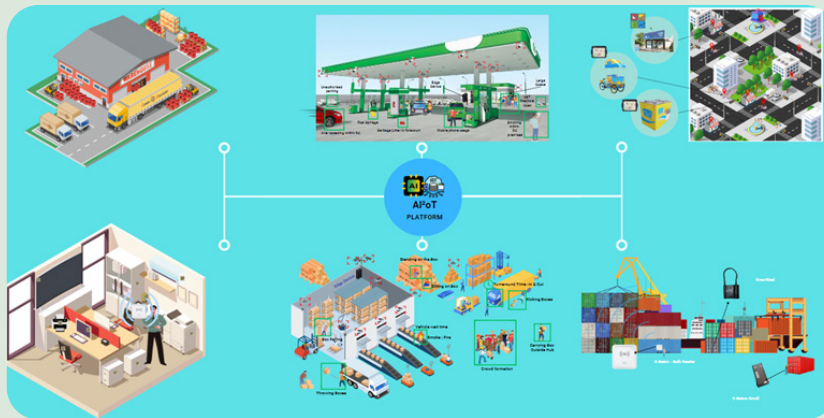
AI²oT: Powering the Future of E-Mobility and Global Transportation



Meeting the E-Mobility Challenge: IoT at the Core of Smart Mobility

The global shift towards e-mobility and sustainable transportation is no longer a vision for the future—it's happening now. At Kritilabs, we are playing a leading role in addressing the core challenges of this transformation through our groundbreaking AI²oT™ platform. Our platform is rapidly emerging as a major player in tackling the complexities of secure transportation, asset and vehicle tracking, and VAIoT-powered solutions such as Driver Behaviour Management.

With AI²oT, we provide all IoT-based mobility solutions on a single, integrated platform that scales effortlessly across industries like transportation, e-commerce, and logistics. As the demand for innovative, data-driven mobility systems grows, the strength and versatility of our platform set us apart in the market, positioning Kritilabs as a global leader in the IoT-based mobility ecosystem.



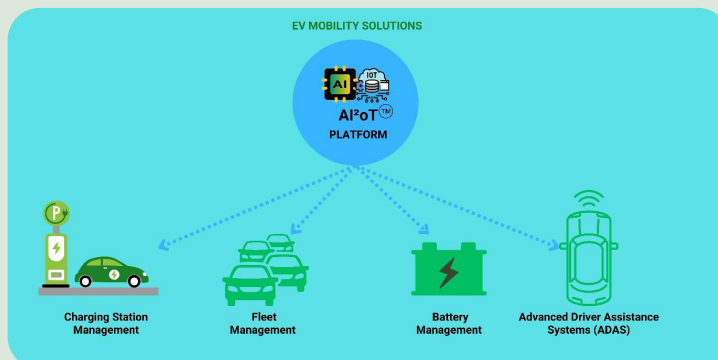
AI²oT: One Platform for Every Mobility Solution

The evolution of transportation and logistics requires a unified solution to address mobility challenges holistically. AI²oT has proven itself as that solution, combining IoT technology with AI analytics to offer unprecedented control and intelligence across the supply chain. From secure transportation and asset tracking to vehicle telematics, real-time monitoring, and predictive maintenance, AI²oT enables businesses to operate smarter, safer, and more efficiently.

The platform's unique capability to handle large-scale mobility solutions, coupled with its flexibility to integrate with emerging technologies like electric vehicles (EVs), makes it the backbone of e-mobility transformation. The power of our AI²oT platform extends beyond transportation—we can offer advanced monitoring and predictive maintenance for industries such as refineries, factories, and processing plants, where proactive management of large machineries and assets is critical.



Our Sales team has been instrumental in showcasing the potential of AI²oT to clients, helping them understand how our platform can address their unique operational challenges. We're focused on gaining a major market share in **mobility platform solutions** across transportation and logistics by demonstrating the end-to-end solutions our platform offers.



Expanding into the E-Mobility Space: Electrifying the Future

The rise of **electric vehicles (EVs)** and the rapid expansion of e-mobility have created a new frontier for IoT-based platforms. As EVs become central to future transportation systems, the need for smart, interconnected solutions that can manage entire fleets, monitor battery health, and ensure safety and efficiency is more important than ever. AI²oT is primed to meet this challenge head-on.

Our patented AI²oT platform has the potential to provide comprehensive support for **EV Smart Mobility services**, including **battery pack management**, **charging infrastructure**, and **safety protocols**. With **real-time data analytics** at its core, AI²oT can help in continuously monitoring fleet health, optimizing **deployment strategies** and improving efficiency. This offers our clients the flexibility and innovation needed to scale their EV operations.

As the EV landscape evolves, we are prepared to help clients navigate the shift in roles and responsibilities on both the **end-user side** and the **EV management side**.

Unlocking the Future: Sales Team Insights

The role of the Kritilabs Sales team in driving this transformation cannot be overstated. We are actively engaging with clients across industries to demonstrate the **strength**, **scalability**, and **versatility** of AI²oT as a **single-source platform** that can address all IoT-based mobility needs on a **global scale**. Our efforts are focused on building long-term relationships with key players in transportation, logistics, and e-mobility, showcasing our ability to support them in every phase of their digital transformation journey.

By aligning with industry trends and listening closely to our clients' needs, we are positioning AI²oT as a **major disruptor** in the mobility market, offering a seamless integration of AI and IoT solutions that can scale across diverse geographies and industries.

From **predictive maintenance for large entities** like refineries and factories to **next-generation EV mobility solutions**, Kritilabs is ready to lead the charge, helping businesses unlock new efficiencies, reduce operational risks, and shape the future of mobility.

Looking Ahead: AI²oT and the Future of E-Mobility

The future of transportation and e-mobility is already here, and the Kritilabs AI²oT platform is powering that future. With our Sales team driving growth and engagement, we're not just meeting the demands of today's clients; we're preparing for the opportunities and challenges that lie ahead. Whether in **secure transportation**, **logistics**, **EV mobility**, or **industrial-scale asset management**, AI²oT is the game-changing platform that will continue to drive innovation for years to come.



1. What's New

“ALS e-Baton Redefined: Upgraded Handheld Design”

The ALS e-Baton handheld has received a significant design upgrade to enhance overall performance, usability, and aesthetics. This new design focuses on improving ergonomics and functionality, ensuring it meets the demands of diverse operational environments. In response to valuable feedback, these enhancements aim to provide a more efficient, visually appealing, and user-friendly experience for all users.

2. Pilot Projects and Kickoff Initiatives

ALS Tracker (VTS) Pilot Kicks off in Jammu

A pilot installation of five ALS Tracker devices has been successfully completed at the IOCL terminal in Jammu. This deployment expands advanced IoT-based asset tracking solutions to remote areas, enhancing security and enabling real-time monitoring for improved operational efficiency.

Research on VAIOT Product for Put to light (PTL) systems

We are pleased to announce that the research phase for the PTL-based VAIOT solution for Ecom Express was begun. This advanced initiative focuses on developing cutting-edge object detection and training systems, aimed at enhancing package tracking and management. The integration of VAIOT technology is set to streamline operations and improve overall efficiency in package management.

3. Top News

Discover the Future: Monthly Subscription to Electronics For You (EFY) Magazine!

We're thrilled to announce that we have subscribed to Electronics For You magazine, available every month in the Nano Library, recently set up on Floor 2 S&M Consortium. This magazine offers the latest insights and updates on electronics, innovations, and technology trends.

Feel free to drop by and explore the latest edition at your convenience. Contributions are welcome! Stay informed and inspired with cutting-edge content right at your fingertips!

e-Seal Upgrade: Introducing NFC Technology

We are excited to announce the release of our new NFC (Near Field Communication) version of the e-Seal solution. The NFC upgrade enhances precision and efficiency, ensuring faster and more reliable sealing and authentication processes. While the LHF version continues to provide robust performance, the new NFC-based e-Seal delivers improved automation capabilities and offers 99% accuracy, further strengthening security and compliance across diverse sectors. Both versions are now successfully deployed, driving operational excellence.

4. Research and Collaboration

Advancing Liquid Level Measurement with IGCAR

We have collaborated with IGCAR for Liquid Level Measurement Project, which focuses on developing an IoT-enabled system for precise liquid level measurement, specifically targeting fuels like diesel

and transformer oil. The project employs a pulsating sensor-based measurement technique that calculates liquid volume based on variations in capacitance due to changes in the dielectric medium. On October 23rd, a meeting was held the review assessed the project's progress and highlighted its potential for efficiency and scalability in industrial applications. Overall, the meeting reinforced the project's direction and the team's commitment to delivering innovative solutions.

Events and participation

One-Day Workshop on "Navigating the Art of Product Thinking: The Secret to Building Great Products on October 25th."

A one-day workshop organized by CREST and IITM DoMS will focus on "Navigating the Art of Product Thinking: The Secret to Building Great Products." This workshop is designed to equip participants with essential skills in Product Thinking, emphasizing the alignment of product offerings with market needs and effective market segmentation. Key discussions will include optimizing product development and addressing how improper investment decisions can hinder achieving Product-Market Fit. Through interactive sessions and real-world case studies, showcases valuable insights into building successful products in competitive markets. Participants from our team include Vidushi A R, Sriram G G, Balaji P, Prabhakaran S, Uthralakshmi K.

5. "Puzzling Challenges: Can You Solve Them?"

The Age Problem: A mother is three times as old as her son. In 12 years, she will be twice as old as her son. How old are they now?

The Hourglass: You have two hourglasses: one measures **7 minutes** and the other measures **4 minutes**. How can you measure exactly **9 minutes** using only these hourglasses?

6. "Brain Teasers: Can You Crack These Fun Riddles?"

The Whispering Mystery: I speak without a mouth and hear without ears. I have no body, but I come alive with the wind. What am I?

The Unwanted Guest: What has a head and a tail but no body?

The Time Traveler's Dilemma: What comes once in a minute, twice in a moment, but never in a thousand years?

The Unseen Traveler: I'm light as a feather, yet the strongest person can't hold me for five minutes. What am I?

7. Knowledge Corner

Difference Between a Normal Computer and AI

Normal Computer: A traditional computer follows explicit instructions provided by humans. It operates using predefined algorithms and logic, processing data according to programmed rules. It performs tasks like calculations, data storage, and processing but lacks the ability to "learn" from data or adapt its behavior over time.

Artificial Intelligence (AI): Unlike normal computers, AI systems can analyze large amounts of data, learn from patterns, and make decisions without explicit human instructions. AI mimics human cognitive functions such as problem-solving, learning, and adapting. It improves its performance over time through techniques like machine learning, allowing it to handle complex tasks such as image recognition, natural language processing, and autonomous decision-making.

AI takes computing beyond mere data processing into intelligent problem-solving!

8. DIY Motion-Activated Night Light Project: Illuminate Your Space Automatically!

This fun and easy electronics project is perfect for anyone interested in learning about sensors and automation. You'll create a motion-activated night light using an Arduino microcontroller, a PIR motion sensor, and an LED light strip. Below are expanded steps to help you through the process.

What You'll Need:

1. **Arduino Uno**
2. **PIR Motion Sensor**
3. **LED Strip** (or RGB LED)
4. **Resistors** (appropriate for your LED strip)
5. **Breadboard and Jumper Wires**
6. **9V Battery or USB Power Source**
7. **Arduino IDE** (software for programming the Arduino)
8. **Light Dependent Resistor (LDR)** (optional, for light level detection)
9. **Transistor** (optional, for controlling higher current loads)
10. **Diode** (optional, for protecting the circuit when using higher power LEDs)

How It Works:

1. The PIR (Passive Infrared) sensor detects movement by sensing changes in infrared radiation (heat) emitted by objects in its field of view.
2. When motion is detected, the sensor sends a digital signal to the Arduino.
3. The Arduino processes this signal and activates the LED strip.
4. After a preset period of inactivity, the Arduino turns off the LEDs to save energy.

Steps:

Step 1: Gather Your Components

- * Collect all the components listed above. Ensure that your LED strip is compatible with your Arduino (most strips operate at 12V).

Step 2: Set Up the Breadboard

- * Place your Arduino and PIR sensor on the breadboard. This makes it easier to connect components without soldering.

Step 3: Connect the PIR Sensor to the Arduino

- * Wiring:
 - Connect the **VCC** pin of the PIR sensor to the **5V** pin on the Arduino.
 - Connect the **GND** pin of the PIR sensor to the **GND** pin on the Arduino.
 - Connect the **OUT** pin of the PIR sensor to **digital pin 2** on the Arduino.

Step 4: Connect the LED Strip

- * Wiring:
 - If you're using a standard LED strip (not RGB), connect the positive lead of the LED strip to a **digital pin** (for example, pin 9) on the Arduino, and the negative lead to GND.
 - If using an RGB LED strip, connect the **R**, **G**, and **B** pins to PWM-capable pins on the Arduino (e.g., pins 9, 10, 11) and the common ground to GND.

Step 5: Set Up Power

- * Connect your Arduino to a **USB power source** or use a **9V battery**. If using a battery, consider using a voltage regulator to ensure the Arduino and LED strip receive appropriate voltage levels.

Step 6: Write the Arduino Code

- * Connect your Arduino to a USB power source or use a 9V battery. If using a battery, consider using a voltage regulator to ensure the Arduino and LED strip receive appropriate voltage levels.
- * Upload the code to your Arduino.

Step 7: Test the Setup

- * Move in front of the PIR sensor to trigger the light. The LED strip should turn on when motion is detected and turn off after a set period.

Step 8: Optional Enhancements

Light Level Detection:

- * Add an LDR to measure ambient light levels. Connect one side to **5V** and the other side to a **10kΩ resistor** leading to GND. Connect the junction to an **analog pin** on the Arduino (e.g., A0). Modify the code to check if the light level is below a certain threshold before activating the LED.

Control Brightness:

- * Use PWM (Pulse Width Modulation) to control the brightness of the LED strip based on the LDR input or set a specific brightness when motion is detected.

Color Control:

- * If using an RGB LED strip, modify the code to change colors based on conditions (e.g., red for night, blue for motion detected).

Transistor Control:

- * If your LED strip requires more current than the Arduino can provide, use a transistor as a switch to control the

LED strip with a higher current supply. Connect the transistor's base to a digital pin on the Arduino through a resistor.

Adjustable Timeout:

- * Implement a variable timeout for how long the lights remain on after motion stops. You could even add a potentiometer to allow manual adjustments.

Step 9: Final Assembly

- * Secure all components in a suitable enclosure. Ensure the PIR sensor has a clear view for detecting motion. Optionally, you can add a diffuser to the LED strip to soften the light.

Step 10: Enjoy Your Motion-Activated Night Light!

- * Place your night light in a suitable location, like a hallway or bedroom, and enjoy the convenience of hands-free lighting!

Conclusion

This project is not only a great introduction to electronics but also a practical solution that can be used in households. Customize it further based on your preferences and enjoy experimenting with different features!

9. "Beyond Words: The Enchantment of Metaphors!"

Definition: A metaphor is a figure of speech that describes one thing as if it were another, highlighting similarities between the two. Unlike a simile, which uses "like" or "as" for comparison, a metaphor asserts that one thing is another.

Examples of Metaphors:

"Time is a thief."

1. **Explanation:** This metaphor suggests that time stealthily takes away moments from our lives, much like a thief would steal possessions. It emphasizes how quickly time can pass and how it can feel as if it robs us of our experiences.



Spotlight on Ms. Harinee Vinodh: A Catalyst for Efficiency and Team Culture



Ms Harinee Vinodh joined Kritilabs Technologies 2.5 years ago as the Executive Assistant to our CEO and MIS in-charge, bringing with her a wealth of experience and a keen eye for process improvement.

With over 15 years of professional experience, she has previously worked with well-regarded companies including Standard Chartered, HDFC Bank, Hewlett Packard, and Ford in India.

Her journey also took her to Singapore, where she spent 7 years enhancing backend operations and streamlining processes for an industrial engineering firm and various startups.

Harinee has done Bachelor's degree in Commerce and a Master's degree in Financial Management, complements her professional expertise. Known for her dynamic and creative approach, she's been instrumental in refining workflows and enhancing departmental coordination at Kritilabs.

Her commitment to excellence extends beyond her primary role, as she has led numerous festive events and team activities that have strengthened our workplace culture.

An artist at heart, She enjoys canvas painting, clay art, and glasswork in her free time. She is also passionate about cooking, bringing the same creativity to her hobbies that she applies to her work. Harinee's dedication and vibrant presence make her a cherished team member

Harinee looks forward to seeing her continued impact at Kritilabs Technologies.

Spotlight on ANANTHARAMAN.P



Mr. Anantharaman Pandurangan joined Kritilabs Technologies 2.5 years ago as the Senior Manager of Mechanical Unit and HOD, bringing with him a wealth of experience and a keen eye for Product & Process Development.

With over 35 years of Engineering experience, he has previously worked with well-regarded companies including Devi Polymers, Jai Engineers, Insap Engineers, and Vanjax. His journey also took him to United Kingdom, and China where he spent 4 years enhancing Design and Manufacturing operations and streamlining processes for industrial engineering firm and various startups.

Anantharaman has done Mechanical Engineering, that complements his professional expertise. Known for his dynamic and creative approach, he's been instrumental in refining workflows and enhancing departmental coordination at Kritilabs. Anantharaman is interested in sharing his overall Knowledge for Kritilabs Technologies growth.

He recently wrote an article on "OTP based IOT door Locking System" which was published by the International Journal IJITCE (International Journal for Information Technology and Creative Engineering).(www.ijitce.co.uk) (September 2024 edition)

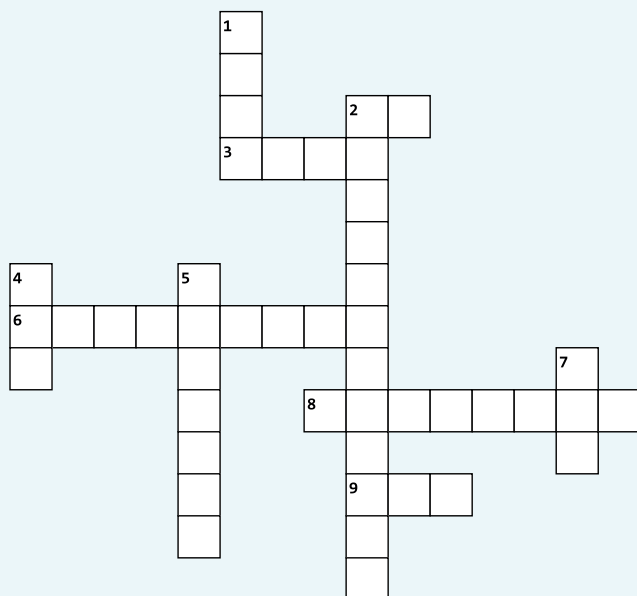


Skills: Design & Manufacturing of Machineries & Material Handling Equipment's, Plant Operations & Maintenance, Sales & Marketing, ISO-QMS 9001-2015 & EMS-14000 auditing, MIS, SAP, NPD, and ERP, Excel and Word from Microsoft

He carries huge responsibilities

- * Hire, train, and oversee the managers, supervisors, and coordinators of the manufacturing facility's purchasing, operations planning, receiving, warehousing, shipping, machining, coating, assembly, testing, and maintenance departments.
- * Hydraulic presses, cylinders, power packs, material handling equipment, and machinery are designed and manufactured.
- * Continually find and oversee projects aimed at improving processes. Under the guidelines established by the Purchasing Group and Global Materials, manage inventory to satisfy demand while preserving optimal levels.
- * Promote communication between Engineering, Sales, and Operations to guarantee that high-quality goods and services are quoted, produced, and delivered to the client on schedule.
- * To find possible problems, automate procedures, and cut down on inefficiencies, create and evaluate reports. Create and manage budgets for capital and operating equipment.
- * Carry out additional tasks as directed by management. Collaborate with state and local authorities as well as the community at large to try to keep the business environment peaceful.

**CROSSWORD
PUZZLES**



****Across****

2. Artificial intelligence, often used to automate decision-making processes. (2 letters)
3. A system for tracking objects or people using radio waves. (4 letters)
6. Theft or unauthorized removal of goods, often during transportation. (9 letters)
8. Management of buildings and facilities to ensure they are well-maintained and secure. (9 letters)
9. Technology that enables communication between devices over the internet. (3 letters)

****Down****

1. System used to identify vehicles by reading their license plates automatically. (4 letters)
2. Adding cheaper substances to increase the quantity of a product, reducing its quality. (12 letters)

4. Satellite-based system used for location tracking. (3 letters)
5. Smart security feature that allows entry without using traditional keys. (7 letters)
7. A short code used for secure verification processes. (3 letters)

****Share your answer to rajaram.venkat@kritilabs.com****



Internal systems:

What is next? Who would support us?

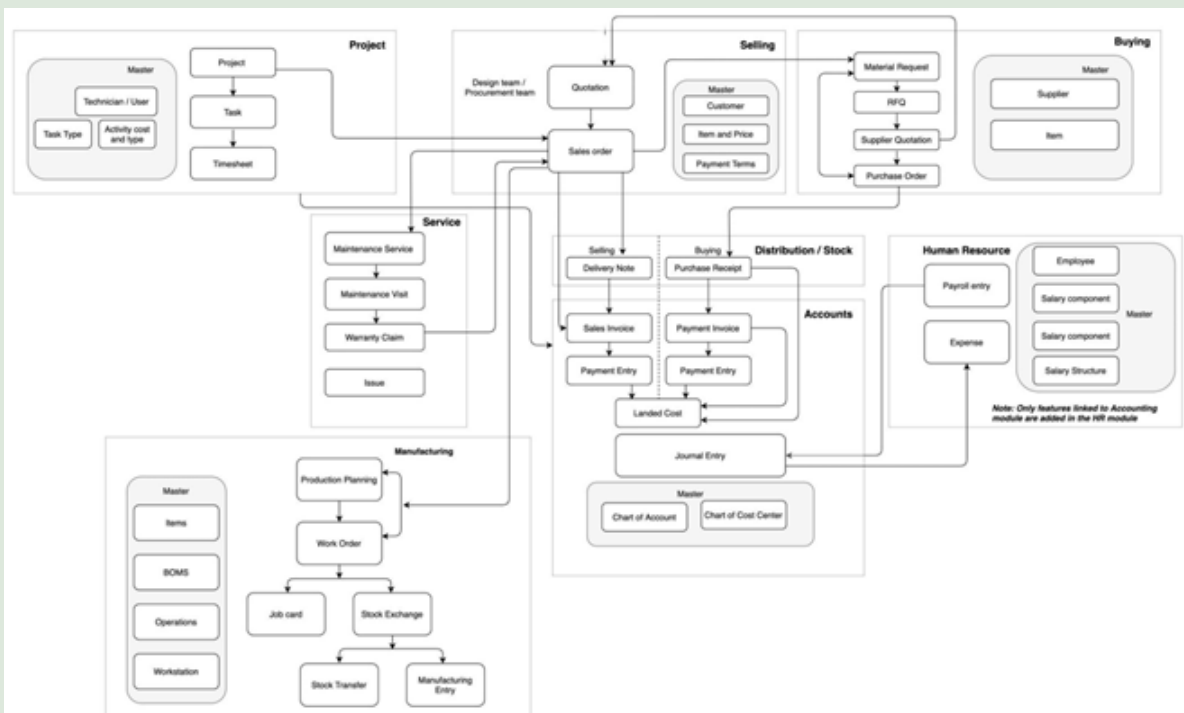
Happy for sharing the update on the ERP implementation. With the HR module live and other modules (Buying, Asset, and Stock) in progress, we're progressing well toward an integrated ERP system. It's an exciting opportunity to streamline operations and enhance efficiency.

If you have suggestions, feedback, or are facing any constraints, please email the ERP support team at erp.support@kritilabs.com. Your insights will play a key role in refining the ERP to better suit our needs.

Here's an outline of how these modules typically interconnect in ERP systems:

- 1. HR Module:** Provides employee and user data, which flows into access controls for other modules.
- 2. Buying Module:** Manages purchasing workflows and links to Stock for inventory updates upon receiving goods.
- 3. Asset Module:** Records and manages assets, including those procured through Buying and those in Stock.
- 4. Stock Module:** Maintains inventory levels, recording stock in/out transactions based on purchasing and asset data.

With this interconnected structure, ERP will provide seamless, real-time updates and reporting across departments, boosting overall operational efficiency.



Essential Tips to Safeguard Your Laptop from Rain: Protect Both Personal and Company Devices”

Certainly, team. Please remember the IT assets provided by the organization, valued between Rs. 1.0 to more than 5.0 lakhs, are critical resources that require diligent handling. Here are some key points to ensure their protection:

1. **Handle with Care:** Always handle devices with caution to prevent accidental damage.
2. **Security Measures:** Keep your devices secure and avoid sharing them with unauthorized persons.
3. **Reporting Incidents:** For any accidental damage or incident, please promptly contact the IT infrastructure team for assistance.



Let’s all do our part in maintaining the integrity of our company’s assets.

Here are some important guidelines to protect your laptop during rainy weather.

Do’s to Protect Your Laptop

1. **Power it Down:** Turn off your laptop immediately if exposed to water to prevent electrical damage.
2. **Avoid Direct Exposure:** Keep it away from rain and high-moisture areas.
3. **Use a Waterproof Bag or Cover:** Invest in a waterproof laptop bag or sleeve to shield it from moisture.
4. **Carry an Umbrella or Rain Protection:** If you’re carrying it in the rain, use an umbrella or a dedicated laptop rain cover.
5. **Add Silica Gel Packets:** Place silica gel in your bag or case to absorb moisture.
6. **Secure Backups and Cloud Storage:** Regularly back up your files on platforms like Zoho Drive to prevent data loss.
7. **Allow Sufficient Drying Time:** If exposed to moisture, air dry the laptop thoroughly before using it again.

What Not to Do to Avoid Damage

1. **Do Not Power On:** If the laptop is wet, do not turn it on until it’s completely dry.
2. **Do Not Use Heat Sources:** Avoid using heaters or microwaves to dry your laptop, as they can cause more harm.
3. **Do Not Shake or Tilt:** Moving it excessively can cause water to seep further into internal components.
4. **Do Not Use Rice:** Contrary to popular belief, rice isn’t ideal for moisture removal and may introduce dust particles.
5. **Do Not Use a Hair Dryer:** Hot air can damage sensitive components and push moisture further into the device.

Following these steps will help minimize water damage and protect your laptop’s lifespan. In case of significant exposure to water, consult IT or a professional service to avoid costly repairs.

Last month Quiz answers:

a.	Cloud Storage
b.	Youtube
c.	Network
d.	Fingerprint
e.	Downloading
1	a
2	c
3	b

Courtesy: Internet

Curated by: Per podunga editor



Article on Empathetic Leadership was contributed by Kalpana, Head of Production

Empathetic Leadership – a food for thought !!

I read this thought-provoking comment on LinkedIn last night “**Be a Senior you needed, when you were Junior**”. Leadership style so relatable indeed!!!

Empathetic Leadership is the focus of today. Who is a better example of leading with purpose and empathy than Mr. Ratan Tata.....a noble soul who leaves behind lessons for future generations in the areas of innovation, commitment to ethical business practices, unwavering focus on long term value creation and focus on achieving audacious goals. Mr. Tata’s steadfast commitment to ethics, well-being of employees and social responsibility made him one of the best examples of an Empathetic Leader. (Certainly, sounds like a tribute to someone so dear we lost a few weeks ago).

Empathetic Leaders have high level of emotional intelligence. They foster a culture of growth by building confidence among their team members, creating a positive work environment and respecting people’s space and time. For every goal focussed on – ‘**we are in it together**’..... goes the slogan.

Few pointers for being an empathetic leader:

- * Relate to & connect with employees and get people excited at every step, every day.
- * Create a safe working environment where people’s well-being is of high priority.
- * Encourage innovation and allow people to make mistakes.....let people unleash their full potential and find solutions to problems.
- * Empower people to make decisions.
- * Be an active & patient listener.
- * Celebrate smallest of success and achievements.
- * Do not focus on power, control, ego or money for yourself – leader needs to be focussed on helping the team succeed, stand behind and applaud their success.

Is it possible to transform leadership style – **of course yes** ! Remembering what Ed Catmull in his book Creativity Inc wrote that Steve Jobs transformed himself in the **last** two decades of his career. From being brilliant but emotionally tone-deaf person to learning how to push people without breaking themthat was his acquired style.

Suggested Reading: Creativity Inc by Ed Catmull



Health is Wealth

The article was contributed by Rajesh, Finance

Investment in your physical and mental well-being :

The World Health Organization (WHO) recommends at least 150 minutes of moderate-intensity aerobic physical activity or 75 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of both, for adults aged 18-64 years.

Why 150 minutes of regular exercise is essential:

Physical Health Benefits:

1. Weight management
2. Cardiovascular disease prevention
3. Improved blood sugar control
4. Enhanced bone density
5. Reduced risk of certain cancers (e.g., colon, breast)
6. Yoga
7. Pilates
8. Golfing

Mental Health Benefits:

1. Reduced stress and anxiety
2. Improved mood and cognitive function
3. Enhanced sleep quality
4. Increased self-esteem
5. Better coping mechanisms for mental health conditions

Additional Benefits:

1. Improved productivity and focus
2. Enhanced creativity
3. Better time management
4. Increased energy levels
5. Social benefits (e.g., meeting new people, building relationships)

Moderate-Intensity Exercise Examples:

1. Brisk walking
2. Cycling
3. Swimming
4. Dancing
5. Gardening

Vigorous-Intensity Exercise Examples:

1. Running
2. Jumping rope
3. Boxing
4. High-intensity interval training (HIIT)
5. Strength training

Tips to Achieve 150 Minutes/ Week:

1. Aim for 30 minutes/day, 5 days/week
2. Incorporate physical activity into daily routine (e.g., taking stairs)
3. Schedule exercise sessions
4. Find activities you enjoy
5. Mix and match moderate and vigorous exercises
6. Involve friends or family for motivation

Remember:

- Consult a healthcare professional before starting a new exercise program.
- Warm up and cool down to prevent injuries.
- Listen to your body and rest when needed.

Regular exercise is a crucial investment in your physical and mental well-being. Make it a habit and reap the benefits

Happy Diwali

