D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

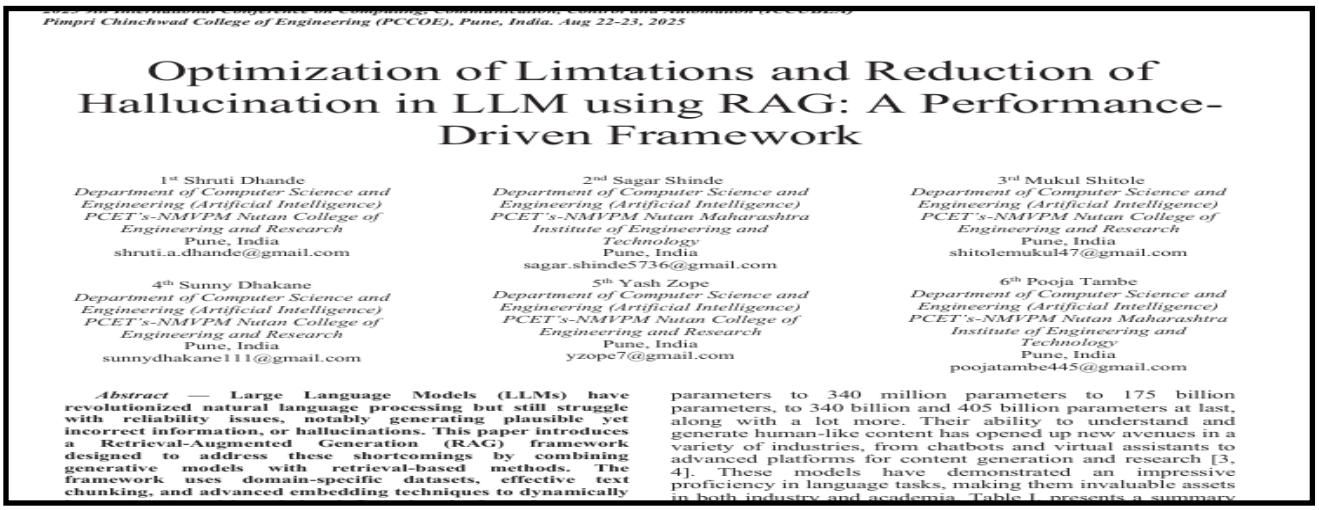
DEPARTMENT OF COMPUTER ENGINEERING

NEWS LETTER - DECEMBER 2025

Faculty Achievements/ Participation :

1.Ms.Pooja Tambe has published the paper entitled by “Energy Conservation in Railway Tunnels” in 2025 9th International Conference on Computing, Communication, Control and Automation (ICCUBEA) Pimpri Chinchwad College of Engineering (PCCOE), Pune, India. Aug 22-23, 2025

2.Ms.Pooja Tambe has published the paper entitled by “Optimization of Limtations and Reduction of Hallucination in LLM using RAG: A Performance Driven Framework ” in 2025 9th International Conference on Computing, Communication, Control and Automation (ICCUBEA) Pimpri Chinchwad College of Engineering (PCCOE), Pune, India. Aug 22-23, 2025



Pimpri Chinchwad College of Engineering (PCCOE), Pune, India. Aug 22-23, 2025

Optimization of Limtations and Reduction of Hallucination in LLM using RAG: A Performance-Driven Framework

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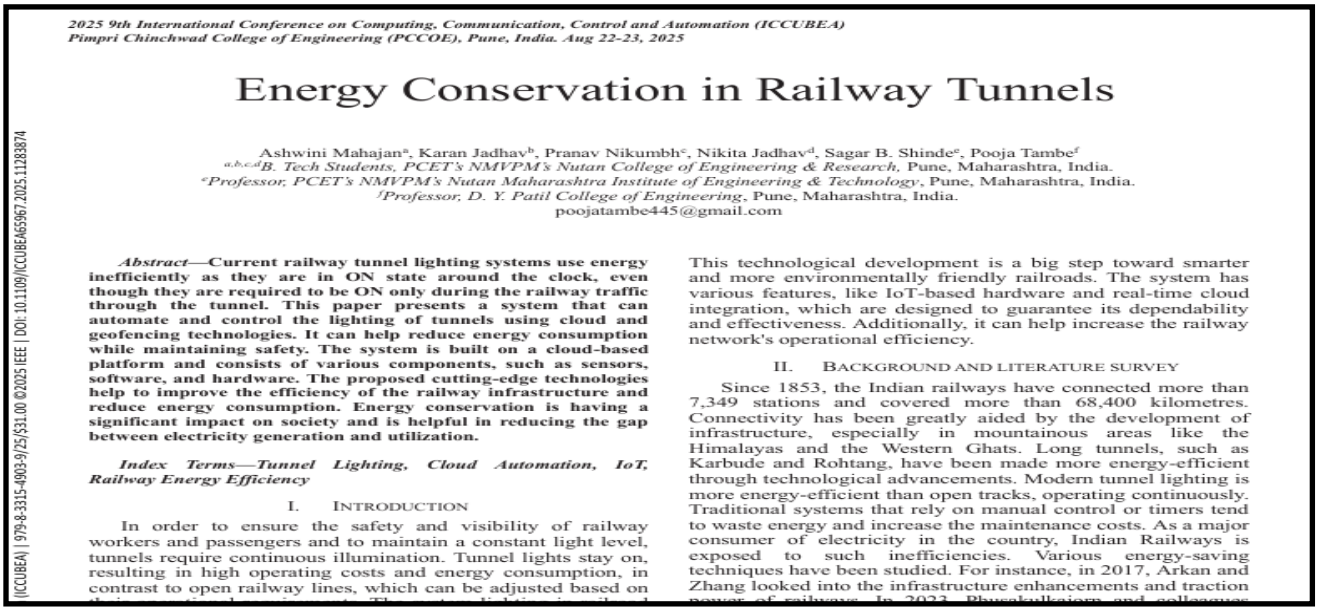
Abstract **— Large Language Models (LLMs) have revolutionized natural language processing but still struggle with reliability issues, notably generating plausible yet incorrect information, or hallucinations. This paper introduces a Retrieval-Augmented Generation (RAG) framework designed to address these shortcomings by combining generative models with retrieval-based methods. The framework uses domain-specific datasets, effective text chunking, and advanced embedding techniques to dynamically**

parameters to 340 million parameters to 175 billion parameters, to 340 billion and 405 billion parameters at last, along with a lot more. Their ability to understand and generate human-like content has opened up new avenues in a variety of industries, from chatbots and virtual assistants to advanced platforms for content generation and research [3, 4]. These models have demonstrated an impressive proficiency in language tasks, making them invaluable assets in both industry and academia. Table I presents a summary



2025 9th International Conference on Computing, Communication, Control and Automation (ICCUBEA)
Pimpri Chinchwad College of Engineering (PCCOE), Pune, India. Aug 22-23, 2025

Energy Conservation in Railway Tunnels

Ashwini Mahajan[a], Karan Jadhav[b], Pranav Nikumbh[c], Nikita Jadhav[d], Sagar B. Shinde[e], Pooja Tambe[f]
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Abstract**—Current railway tunnel lighting systems use energy inefficiently as they are in ON state around the clock, even though they are required to be ON only during the railway traffic through the tunnel. This paper presents a system that can automate and control the lighting of tunnels using cloud and geofencing technologies. It can help reduce energy consumption while maintaining safety. The system is built on a cloud-based platform and consists of various components, such as sensors, software, and hardware. The proposed cutting-edge technologies help to improve the efficiency of the railway infrastructure and reduce energy consumption. Energy conservation is having a significant impact on society and is helpful in reducing the gap between electricity generation and utilization.**

Index Terms**—*****Tunnel Lighting, Cloud Automation, IoT, Railway Energy Efficiency***

I. INTRODUCTION

In order to ensure the safety and visibility of railway workers and passengers and to maintain a constant light level, tunnels require continuous illumination. Tunnel lights stay on, resulting in high operating costs and energy consumption, in contrast to open railway lines, which can be adjusted based on

This technological development is a big step toward smarter and more environmentally friendly railroads. The system has various features, like IoT-based hardware and real-time cloud integration, which are designed to guarantee its dependability and effectiveness. Additionally, it can help increase the railway network's operational efficiency.

II. BACKGROUND AND LITERATURE SURVEY

Since 1853, the Indian railways have connected more than 7,349 stations and covered more than 68,400 kilometres. Connectivity has been greatly aided by the development of infrastructure, especially in mountainous areas like the Himalayas and the Western Ghats. Long tunnels, such as Karbude and Rohtang, have been made more energy-efficient through technological advancements. Modern tunnel lighting is more energy-efficient than open tracks, operating continuously. Traditional systems that rely on manual control or timers tend to waste energy and increase the maintenance costs. As a major consumer of electricity in the country, Indian Railways is exposed to such inefficiencies. Various energy-saving techniques have been studied. For instance, in 2017, Arkan and Zhang looked into the infrastructure enhancements and traction

Faculty Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey
Head of Department

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DEPARTMENT OF COMPUTER ENGINEERING

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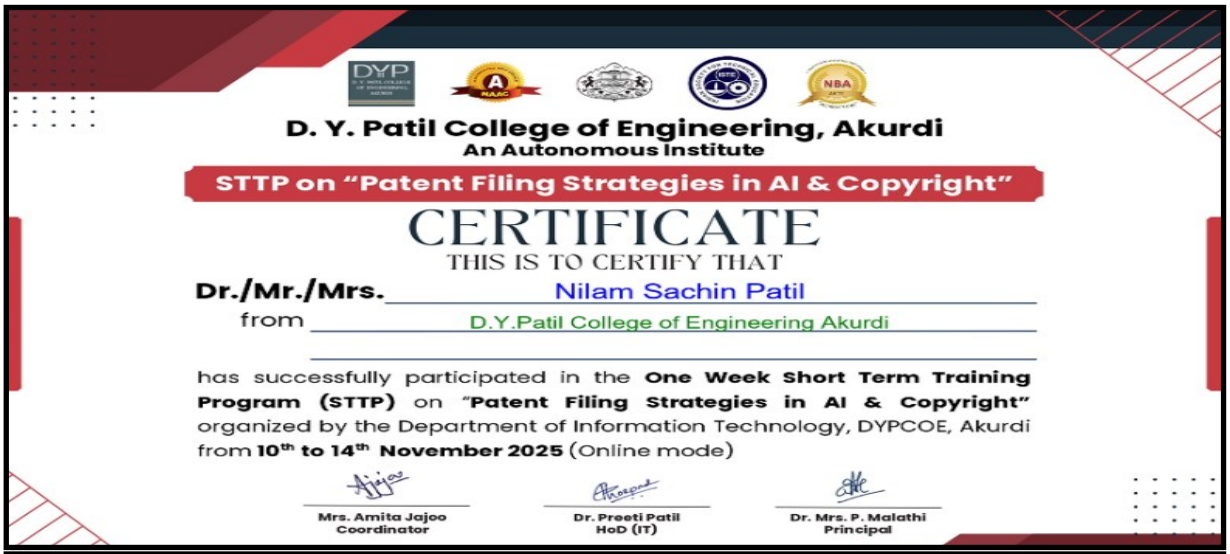
Faculty Achievements/ Participation :

3.Ms.Nilam Patil has successfully participated in the One Week Short Term Training Program (STTP) on "Patent Filing Strategies in Al & Copyright" organized by the Department of Information Technology, DYPCOE, Akurdi from 10th to 14th November 2025 (Online mode)

4.Dr.Abhijit Patankar Patankar secured distinction as a Session Chair at the International Conference on Computational Intelligence and Generative Al, held on 27 December 2025 at SOCSE, Sandip University, and for effectively moderating technical sessions wali professionalism, academic insight, and leadership, enturing meaningful discussions and the smooth conduct of the conference proceedings



D. Y. Patil College of Engineering, Akurdi
An Autonomous Institute

STTP on "Patent Filing Strategies in Al & Copyright"

CERTIFICATE

THIS IS TO CERTIFY THAT

Dr./Mr./Mrs. Nilam Sachin Patil

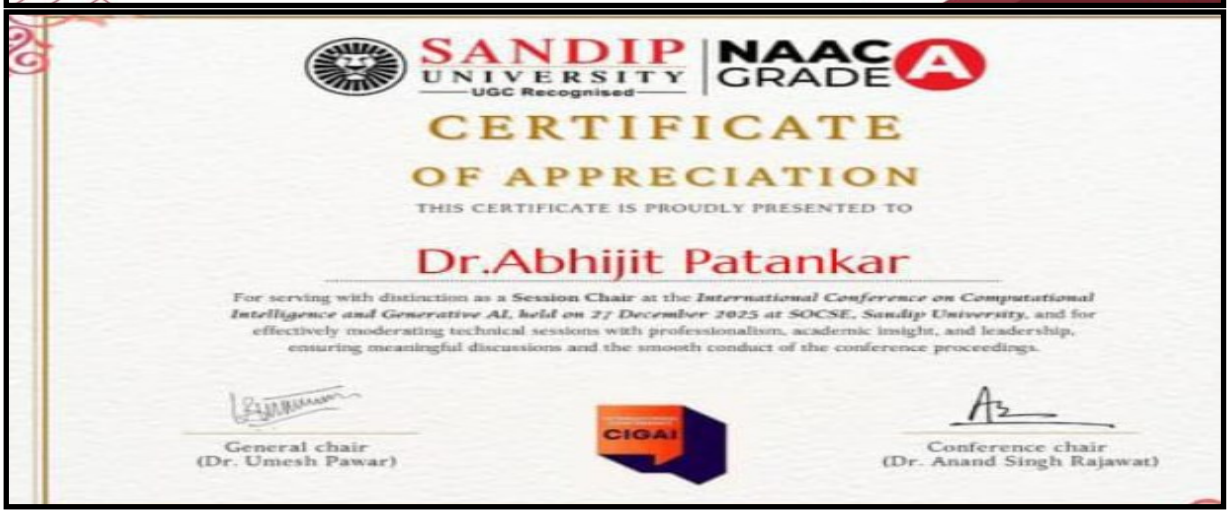
from D.Y.Patil College of Engineering Akurdi

has successfully participated in the **One Week Short Term Training Program (STTP)** on **"Patent Filing Strategies in Al & Copyright"** organized by the Department of Information Technology, DYPCOE, Akurdi from **10th to 14th November 2025** (Online mode)

Mrs. Amita Jajoo
Coordinator

Dr. Preeti Patil
HoD (IT)

Dr. Mrs. P. Malathi
Principal



SANDIP UNIVERSITY
UGC Recognised

NAAC GRADE A

CERTIFICATE

OF APPRECIATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Dr.Abhijit Patankar

For serving with distinction as a **Session Chair** at the ***International Conference on Computational Intelligence and Generative AI, held on 27 December 2025 at SOCSE, Sandip University***, and for effectively moderating technical sessions with professionalism, academic insight, and leadership, ensuring meaningful discussions and the smooth conduct of the conference proceedings.

General chair
(Dr. Umesh Pawar)

CIGAI

Conference chair
(Dr. Anand Singh Rajawat)

Faculty Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey
Head of Department

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DEPARTMENT OF COMPUTER ENGINEERING

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Faculty Achievements/ Participation :

5.Ms.Pooja Tambe has actively participated in and successfully completed the One-Week National LevelFaculty Development Program on "Generative AI and Large Language Models: Concepts, Tools & Applications" in association with IEEE Pune Section organized by the Department of Artificial Intelligence and Data Science, Keystone School of Engineering. Conducted From 15th December - 19th December, 2025

6.Ms.Pooja Tambe has attended the One Week International Faculty Development Program on “Convergence of AI and Data Science for Sustainable Development Goals (SDGs)”, organized by the Department of CSE-Data Science, Vishwakarma Institute of Technology, Pune, from 16 to 20 December 2025

Faculty Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department

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Students' Achievements/ Participation :

1. Mr. Prathamesh Ranjanikar has been recognized as an NPTEL Star Believer – Completed 5 NPTEL courses in one semester, for his performance in NPTEL courses from July to December 2025, receiving a Certificate of Appreciation from NPTEL and SWAYAM.
2. Ms. Archita Dattatray Suture has successfully completed the Progression School Workshop, earning a Certificate of Participation.
3. Ms. Archita Dattatray has successfully completed the Career Essentials in Generative AI course by Microsoft and LinkedIn.

Students Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department

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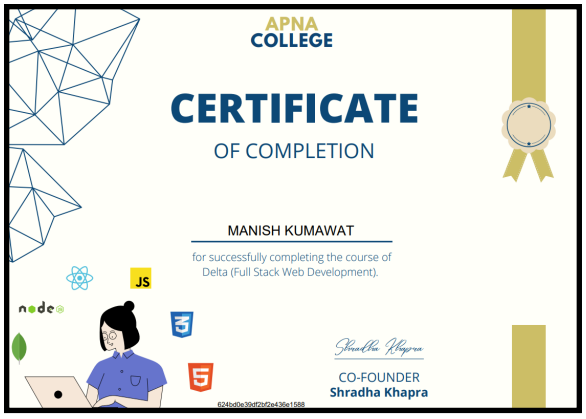
Students' Achievements/ Participation :

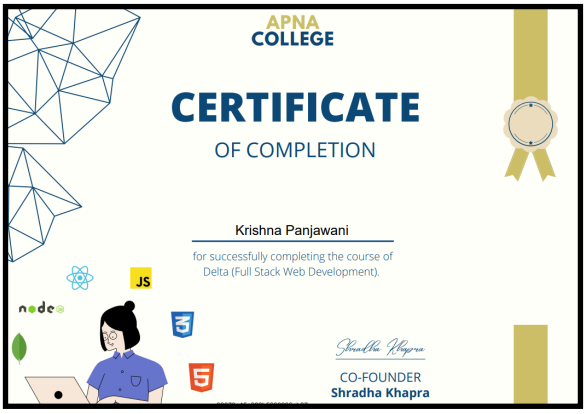
4. Mr. Manish Kumawat has successfully completed the Delta (Full Stack Web Development) certification course conducted by Apna College.

5. Ms. Krishna Panjwani has successfully completed the Delta (Full Stack Web Development) certification course conducted by Apna College.

6. Mr. Arshad Hamid Bagwan has successfully completed a 2-month Android Development certification course conducted by EdiGlobe (Kshitij).

7. Mr. Arshad Hamid Bagwan has successfully completed a 10-week Python Full Stack Developer Virtual Internship organized by AICTE–EduSkills under the National Internship Portal during July–September 2025.





Students Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department

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Department Activities:

1.Dr.Vaishali Kolhe has conducted ICC Awareness session for FY Computer Girl students on 12/12/2025

Department Activities

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department