

# **TPC Notifier: A Personalized AI Agent for Automated WhatsApp Updates**

Project Proposal

IIT Patna, Training and Placement Cell

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# Objective

To create an LLM-based application and AI agent that will personally and dynamically personalize updates for each registered candidate via WhatsApp. Using the WhatsApp API, Python, and a large language model (LLM) API, the system will notify students of a specific department at IIT Patna about upcoming Training and Placement Cell (TPC) events in real-time.

## Introduction / Problem Statement

Timely communication of TPC events is crucial for student awareness and participation. Currently, updates are shared through generalized emails or messages, which often lack personalization and fail to capture students' attention. This project aims to address that gap by building a smart, conversational agent that delivers customized event updates directly to students' WhatsApp accounts—making communication more engaging, efficient, and relevant.

## Methodology / Tools Used

- **WhatsApp Business API** – for sending direct messages to users.
- **LLM API (e.g., OpenAI API)** – for personalized message generation.
- **Python** – to integrate services, manage workflows, and schedule message automation.
- **Flask / FastAPI (optional)** – for building backend services.
- **MongoDB / Firebase** – for storing user preferences and event data.
- **Google Sheets / Notion / TPC Database** – as a source of event information.

## Expected Outcome

- A functioning WhatsApp chatbot that sends personalized TPC updates to students.
- Message customization based on department, year, and past activity.
- A scalable backend that can onboard more departments in the future.
- An admin interface (optional) for event input and scheduling.

## Timeline

Phase	Duration
Requirement Analysis	1 week
API Integration (WhatsApp + LLM)	2 weeks
Backend Development	2 weeks
Testing & Deployment	1 week
Feedback & Improvements	1 week

## Relevance to Training & Placement Goals

This project directly supports the core function of the TPC—efficient and effective communication. By integrating AI, it not only streamlines the process of disseminating important updates but also showcases the practical use of emerging technologies. The resulting tool will improve student awareness, engagement, and participation in placement activities, positioning it as a flagship communication tool for IIT Patna's TPC.

## Conclusion

The **TPC Notifier** represents a smart, scalable, and impactful solution for enhancing communication within the Training and Placement Cell at IIT Patna. By automating and personalizing updates via WhatsApp, the project demonstrates the innovative application of LLMs in addressing real-world challenges, ensuring that students are well-informed and engaged with upcoming events.