IITG.ai AGENDA

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Introduction:

Hello everyone, I'd like to introduce myself. My name is Mayukh Kundu, and I'm a second-year B.Tech student in the CSE department. I chose the Events Head role as my first preference in the POR.

Since my first year in college, I've been involved in many projects. I started as a member of Kriti, representing Lohit Hostel, and later became one of the managers for the Tenothron workshop module. I've successfully organized four three-day workshops during Techniece. Additionally, I participated in Inter IIT Tech Meet 13.0 as part of the PS Pathway High Prep team, and I have actively taken part in the Inter IIT Bootcamp as well as the PyTorch and Hugging Face workshop.

These experiences have not only given me the chance to organize events but also to learn from participating in them. They have helped me develop strong skills in coordinating teams, delegating tasks, and creating an engaging, collaborative environment within the club.

Goals:

As the Events Head, my main goals are simple and focused.

1. Improve team coordination and communication.
2. Organize engaging campus-wide hackathons and workshops to spark interest in AI/ML.
3. Actively involve freshers through regular meetings, tasks, discussions, and learning sessions.
4. Keep track of ongoing projects — 2 major projects for freshers and a major project by the Heads for Techevince next year.
5. Post small quizzes regularly on the website and share monthly leaderboards on Instagram to keep everyone motivated.
6. Resume MLRW in March next year.

My aim is to build a more active and collaborative AI community on campus, making AI/ML not just about career goals but also about genuine curiosity and real-world applications.

AGENDA:

APRIL 2025:

Recruitment:

- **Timeline**: 10th April to 20th April (tentatively)
- **TASK:**
  The recruitment evaluation will be based on three major tasks:
  1. **EDA:**

- The EDA task will be divided into two parts, assessing participants' analytical thinking and data storytelling skills.

Part 1: Crime Data Analysis

- Participants will be provided with a large dataset in the crime domain.
- They will be required to analyze the data and solve a set of pre-defined questions.
- **Dataset**: FBI crimes (https://cde.ucr.cjis.gov/LATEST/webapp/#/pages/home)

Part 2: Case Investigation

- participants will receive several data tables with clues to solve a mystery.
- Some constraint and hints will be given for the task.
- Use the provided records to piece together the clues.
- Participants have to submit how they approached the problem and solved it.

2. **Personal Website Creation:**
    - Participants will create and deploy a personal website.
    - They must showcase the results of their EDA tasks on the website.
    - This website will serve as a portfolio for their projects, hackathons, and other AI-related activities throughout their one-year tenure with the AI club.
    - The goal is to keep their work organized and offer a professional edge for future internship opportunities.
3. **Bonus Task: Surprise Me If You Can!**
    - An optional task for participants with prior knowledge or experience in ML/AI.
    - Participants are encouraged to create something innovative using any AI/ML tool or library of their choice.
    - They can present a small project, a unique application, or a creative experiment.
    - Evaluation will be based on creativity, effort, execution, and passion

- **Evaluation:**
    - All participants will take part in all three tasks and there will be designated points for of the tasks.
    - The points system will follow Kriti like structure.
    - The for participants for interview will be called based on their ranking.
    - In case two participants submit the same bonus task the participant submitting first will be awarded points.
- **Interviews:**
    - **Timeline**: Tentatively 19th and 20th April, Alternative second Saturday and Sunday of May.
    - Shortlisted participants will be divided into four or more groups.
    - Evaluation will focus on their knowledge, passion, and mindset towards the club.

MAY 2025 - JULY 2025:

ML.AI Course Overview:

1. Summer course on Data Science organized by IITG.ai club comprising Study materials (Videos, blogs and assignments) and Hackathons for evaluating the performance.
2. **Changes from This Tenure:**
    - **Course Structure:**
        - **Week 1:** Python Essentials — Numpy, Pandas, Matplotlib
        - **Week 2:** Supervised Learning — Linear/Logistic Regression, Regularization, Naïve Bayes, Sklearn
        - **Week 3:** Advanced ML — SVM, KMeans, KNN, PCA, Ensemble Learning
        - **Week 4:** EDA — Feature Engineering, Outlier/Missing Value Handling, XGBoost, CatBoost, LightGBM
        - **Week 5:** Neural Networks — Gradient Descent, Activation Functions, Backpropagation
    - **Week 6**: For this week we are planning to give the participants slight introduction and possibilities for further in AI.
      A glimpse into Deep Learning and Computer Vision, exploring basics like CNN. Brief insights into advanced AI concepts like Diffusion Models and their possibilities.
    - The content of the courses are same except i am removing the Hackathon that was conducted in week 4. Instead i propose to keep an exercise notebook in each week giving participants hands on experience.
    - **Feedback:** Weekly feedback will be collected from participants to continuously refine and enhance the ML.AI program for future editions.
3. **Timeline:**
    - Approximate duration: **25 May - 13 July**
    - **6 weeks** of coursework followed by **1 week** for the Hackathon.

Hackathon:

- **Timeline:** Starts in the middle of Week 6 of ML/AI (tentatively 4th July) and runs for one week.
- **Theme**: The hackathon will be totally based on the ML techniques covered in the ML.AI course.
- The purpose of the hackathon is to judge the effectiveness of the course i.e., how much the participants learned from the whole course duration. So the the problem statement will contain all the from week 2 to week 5. Content of week 1 and week 6 is ignored as they are considered to be basics.

Starting of DL Specs:

- At the start of Week 5, we will prompt our club members to apply for financial aid for the Deep Learning Specialization on Coursera, as it typically takes around 14 days for approval.
- Members will begin the DL Specialization after completing the ML.AI course. Courses 1 and 2 require approximately 40 hours, and Course 4 takes 30 hours. With the semester starting on 23rd July, allowing a 2-day buffer for travel and planning for 6 study hours per day, we expect members to complete Courses 1, 2, and 4 by 27-30th July.

AUGUST 2025 - SEPTEMBER 2025:

ATM:

On 1st August we will conduct an ATM where we will notify the members about our future plan and also release an research paper for them to them to get familiar with the upcoming research talk.

Research Talks and AI with Chai:

- **Research Talk:** A 2-hour session every two weeks where we discuss research papers and let members present their ideas to improve their presentation skills. After each session, members will try to implement, run, or fine-tune the concepts discussed. These small projects will be uploaded to their personal websites with strict deadline of at most 1 week.
- **AI with Chai:** A fun, casual meetup every other Sunday (even Sundays) at the tea stall near the lake. We'll chat about the latest AI news and tech updates in a relaxed setting. This isn't just about discussions — it's a space for members to unwind, share their thoughts, and openly talk about any challenges they're facing with their projects or studies. It will also strengthen bonds between members, keeping everyone connected and engaged with the club.
- The above activities will continue through out the semester (excluding the midsem and endsem)
- After Selection of Inter IIT we will completely stop AI with Chai and increase the frequency for research talk. If member demands for AI with Chai we can arrange it.

Mini project:

- **Timeline:** 2nd week – end of 3rd week of August
- **Presentation Date**: 24th August
- The AI with chai will scheduled to Saturdays in this kind of cases.
- **Description:** This two-week mini project will focus on building and understanding NN and CNNs. Participants will work on a problem where they have to handle data with high-frequency mismatches, so they'll learn how to manage such challenges. They will also experiment with changing hyperparameters, to see how it affects the model's performance. This will give them a hands-on understanding of important concepts like overfitting, training time, and how to tackle real-world AI problems. Additionally, instead of using simple functions, participants will be encouraged to write their code using classes in Python — helping them learn more advanced and organized coding techniques.
- **Session on Different Platforms during the mini-project:**
    - We will have practical sessions on how to use key platforms like Kaggle, GitHub, Google Colab, and arXiv.
    - These sessions will cover important skills such as saving and loading models, resuming training from checkpoints, accessing AI-related documentation quickly, and making the most of Kaggle hackathons.
    - This will happen at the same time as the mini-project, starting right after participants complete the DL Specialization.
    - Will be announced on 3rd of August.

Major Project release:

- **Major Project Announcement:** The first major project will be released at the **end of August**.
- **Project Content:** While the exact topic is yet to be finalized, it may focus on the following areas:
  - **GANs**
  - **Transformers**
  - **Image Processing**
- **Timeline:**
  - The project will run until **4th October**.
  - A **strict submission deadline of 30th September** will be maintained.
  - **Project presentations will be held on 5th October**.
- **Team Structure:** Participants will be divided into **several groups**, with each group assigned a **unique project**. Every group will be **supervised by two heads** to provide guidance and ensure steady progress.

OCTOBER 2025:

Workshops:

- We plan to have a 3-day workshop after Midsemester Exams.
- **Timeline**: 30th September - 2nd October
- **Day 1:** PyTorch session for 3 hours on the first half and the next 1.5 hours of second session. Fine-tuning LLMs using Hugging Face for 1.5 hours on the second half.
- **Day 2:** Fine-tuning LLMs using Hugging Face for 3 hours on the first half.

  CV session for the for 3 hours on the second half.
- **Day 3**: CV session for the for 1.5 hours on the second half.
  Buffer time of 1.5 hours in the first half for doubt-clearing or topic revision.
  Online(if possible offline) Guest Session with some Alumni on second half.

INTER IIT:

- **Timeline**:
  - **Overnight Hackathon**: 11th October - 18th October
  - **Initial Submission of Hackathon**: 9 a.m. 13th October
  - **Final Submission of Hackathon:** EOD 18th October
  - **PS release**: Predicting to be on 3rd week of October
  - **Report submission on PS**: EOD 30th October
  - **Interviews**: 1-2nd November
- **Description**:
  The overall structure for Inter IIT will remain the same, with two key submission points during the Overnight Hackathon:
  1. **Progress Submission:**

- **Date:** 13th October
- **Purpose:** To track participants' progress and ensure they are actively working on their projects.
- **Expectation:** One must submit a draft that includes:
  - A clear problem statement and project outline.
  - Initial codebase setup (data preprocessing, model structure, etc.).
  - Any blockers or challenges faced so far.
- This submission is mandatory — even if incomplete — to help us assess their current standing and offer feedback.

2. **Final Submission:**
   - **Date:** 18th October
   - This is the official deadline for project submissions. Participants should aim to submit a near-complete solution, with clear documentation and a working prototype.

NOVEMBER - DECEMBER 2025:

- Inter IIT will continue till December 17th (tentatively) so during this time period there might be no major events. Though the member not selected for Inter IIT will be encouraged to take part in various Kaggle Hackathon during this period.

December Major Project:

- **Announcement:** The project will be announced on 15th December.
- **Group Formation:** A form will be shared, and members must submit a report outlining their project approaches and preferences by 18th December. Based on their reports, groups will be formed.
- **Project Content:** The exact topics are yet to be finalized, but the projects may focus on:
  - LLM Agents
  - Advanced Computer Vision
- **Timeline:**
  - **Deadline:** A strict submission deadline is set for 10th January 2026.
  - **Presentation:** Projects will be deployed and presented on 12th January 2026**.**
- Every group will be supervised by two heads to ensure consistent progress and provide support.

JANUARY 2026:

Beat that Game

- **Timeline:** 13th January - 30th January
- **Description:**

  We're planning a fun and friendly competition between the GameDev & Esports Club and **IITG.ai.** Here's how it works:

- The GameDev & Esports Club will design creative and challenging games — these could be anything from simple platformers to complex strategy games.
- Once the games are built, the IITG.ai club will step in. Our goal? To develop AI models capable of playing — and hopefully beating the games.
- It's a showdown — if our AI outsmarts and beats the game, we win. If the game proves too tough for our AI, the GameDev team takes the crown.

- **Collaboration:**

  This event is more than just a competition — it's a chance for both clubs to grow. The GameDev team will build AI-resistant game logic, while our team will develop AI models to strategize and adapt. It's a fun blend of creativity, coding, and competition.

FEBRUARY 2026 - MARCH 2026:

February Major Project(Know your Enemy):

- **Announcement**: The project will be announced on 31st January.
- **Inter-IIT Competition:** This project will be a friendly competition between IITs. We will connect with other IITs and collaboratively decide on project topics. Each IIT will select one team per project, and the final projects will be mutually judged by the other IIT clubs — no IIT will judge its own project. This may not be Inter IIT level but it will give the members a taste of it and it also encourage them in this project.
- **Collaboration**: We may collaborate with other clubs of IITG.
- **Group Formation**: A form will be shared, and members must submit a report outlining their project approaches and preferences by 6th February. Based on these reports, groups will be formed.
- **Project Content**: The topics will be finalized in a joint meeting before Alcheringa.
- **Timeline:**
  - **Deadline**: A strict submission deadline is set for 8th March 2026. With and video of the team presenting their project.
  - **Results**: 13th March

MLRW and Hackathon (4th Semester):

- This time, I am planning to bring back MLRW with more focus on discussions by industry professionals, especially people at startups.
- We will invite speakers from Indian startups like Sarvam AI, Wadhwani AI and keep it in a mixed offline and online format, such that we can also bring speakers from foreign startups.
- After MLRW, we will organize a big Hackathon running for two weeks.

  The problem statement will be set by the heads in collaboration with others.

  It will be open to the campus, encouraging maximum participation.

  The Hackathon will kick off right after MLRW, ensuring momentum and engagement.

- **Timeline**:
  - **Workshops and Lecture series**: 14-16th March

- **Hackathon**: 17-31st March

Techevince Project:

- Freshers will work on separate application-based and technical projects starting in December.
- These projects are different from the December Project, but selection will happen through the same form.
- Club heads and core team members will guide freshers throughout.
- Since some projects may need extra resources, we'll plan the budget carefully.
- The aim is to finish these projects by mid-March, before Techevince.
- Completing them will highlight the club's skills in building innovative AI solutions.

Club Member Tracking Website:

- Each member will have a personal profile on the club website, linked to their projects and work.
- The site will track the number of events attended and the total events held, with **AI with Chai** excluded from the count.
- Members will be ranked based on attendance, encouraging active participation.
- Attendance will be recorded by club heads using a simple portal.
- The club events and the projects done in this tenure will be shown here.
- Top-ranking members may receive rewards like API credits for ChatGPT, Claude**,** premium software licenses, exclusive AI learning resources, or even a reward of their choice — within a reasonable range, like books, AI course subscriptions, or tech accessories.

Research Work (Optional):

- We will explore opportunities to publish research papers in well-known conferences, focusing on meaningful contributions to the AI community.
- This one is a passion of mine to bring back research focused work in IITG.ai which has been missing for a few years, but given the other things that we have planned in this tenure, this one we have kept as an optional work. But, we will try, nevertheless, to keep research and other discussions during the research paper discussions held twice a month.