J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY
(UGC AUTONOMOUS)
Approved by AICTE & Permanently affiliated to JNTUH

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
&
DEPARTMENT OF CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

MODEL FORGE 2026

[ONE DAY HACKATHON EVENT)

ORGANISED

BY

MACHINE LEARNING
MAVERICKS CLUB

EVENT BROCHURE

EVENT CIRCULAR

J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY
(UGC AUTONOMOUS)
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Department of Artificial Intelligence and Machine Learning

&

Department of CSE (Artificial Intelligence and Machine Learning)

Date: 21-02-2026

CIRCULAR

TO: All III and IV-Year Students of AIML and CSM Departments

The Department of Artificial Intelligence and Machine Learning and the Department of CSE (Artificial Intelligence and Machine Learning) are organizing a **10-hour Hackathon on the Machine Learning Model**, scheduled on **25 February 2026**.
The objective of this competition is to provide a platform where students design algorithms from scratch and build their own models independently on given datasets to solve **real-world challenges**.
All **III and IV-Year students of AIML and CSM departments** are requested to participate in the hackathon and take the opportunity to solve real-world problems.

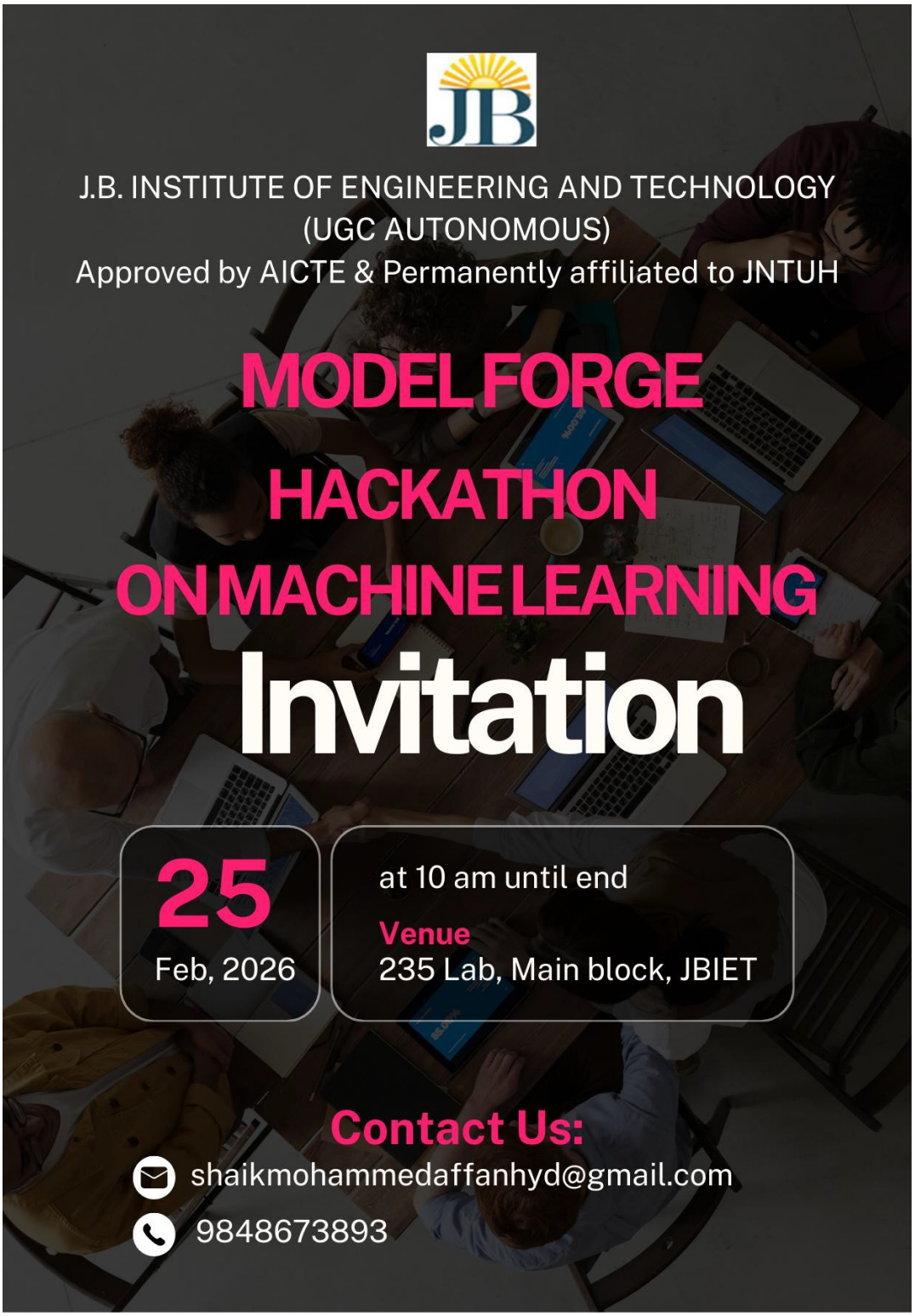
Program Details

- **Program:** Machine Learning Hackathon
- **Date:** 25 February 2026
- **Target Participants:** II and III-Year AIML and CSM Students

Faculty Coordinators

- **Mr. S. Sathish Kumar – Coordinator**
- **Mr. M. Purshotam – Coordinator**
- **Ms. P. Maria Divya Teja – Coordinator**
- **Ms. B. Sangeetha – Coordinator**

HOD AI&ML & CSE (AI&ML)


JB
J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY
(UGC AUTONOMOUS)
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MODEL FORGE
HACKATHON
ON MACHINE LEARNING
Invitation
25
Feb, 2026
at 10 am until end
Venue
235 Lab, Main block, JBIET
Contact Us:
shaikmohammedaffanhyd@gmail.com
9848673893

Inaugural Ceremony

The inaugural ceremony for the MODEL FORGE Hackathon was successfully conducted at J.B. Institute of Engineering and Technology. The event was organized by the Department of Artificial Intelligence & Machine Learning in collaboration with the Department of CSE (AI & ML). The one-day, 7-hour hackathon was designed to encourage innovation, teamwork, and real-time problem-solving in the field of Artificial Intelligence and emerging technologies.

1. Formal Opening

The ceremony commenced with a warm welcome to the esteemed dignitaries, faculty members, and enthusiastic participants. The significance of MODEL FORGE was highlighted as a platform that enables students to ideate, develop, train, and test machine learning models within a competitive and time-bound environment.

The following esteemed guests were invited to the dais to preside over the session:

- Dr. P. C. Krishnamachary, Principal of JBIET.
- Dr. V. Venkata Krishna, Dean CS, JBIET
- Dr. I. Sudarshan Kumar, Dean CD
- Dr. G. Kumar, HOD AI&ML and CSM

3. Key Addresses

- Inaugural Address: Dr. P. C. Krishnamachary formally inaugurated the hackathon and encouraged students to utilize the 7-hour platform effectively to demonstrate innovation, creativity, and technical expertise.
- Welcome Address: The Dean – Computer Science and the Head of the Department welcomed the gathering and emphasized the importance of university-level hackathons in strengthening practical exposure and industry readiness.
- The dignitaries motivated the participants to collaborate efficiently and strive for impactful solutions within the limited time frame.

4. Conclusion

The inaugural session concluded with words of encouragement and best wishes to all participants. The entire event was efficiently organized and coordinated under the

guidance of Mr. S. Sathish Kumar and Mr. Purushotham, ensuring the smooth commencement of the one-day MODEL FORGE Hackathon.

HACKATHON REPORT

Following the inaugural ceremony at **J.B. Institute of Engineering and Technology**, the hackathon transitioned into an intensive technical competition.

1: Hackathon Kick-Off & Dataset Distribution

- Immediately after the inauguration, participants were given 15–20 minutes to review the problem statements and datasets. Following the briefing, all teams were officially locked in to begin coding their respective projects.
- Throughout the hackathon, technical guidance and doubt clarification were provided by Mr. Purushotham and the technical team to ensure smooth progress and fair competition.

2: Hackathon Tracks & Problem Statements

Participants selected one of the following AI domains to develop and train their models:

- **Natural Language Processing (NLP):**
  - **Problem Statement:** Human vs AI Text Classification
  - Participants were required to build a binary classification model to distinguish between Human-written (Label 1) and AI-generated (Label 0) sentences using the Human vs AI Sentences dataset.
  - **Approaches Included:**
    - TF-IDF + Logistic Regression
    - SVM with n-grams
    - LSTM / GRU
    - Transformer models (BERT, RoBERTa, DistilBERT)
  - **Evaluation Metrics:**
    - F1-Score (40%)
    - Accuracy (30%)
    - Precision, Recall, AUC-ROC

- **Generative AI:**
  - **Problem Statement**: Image Super-Resolution (×2 Upscaling)
  - Participants developed models to enhance Low-Resolution images into High-Resolution outputs under unknown degradation conditions.
  - **Approaches Included:**
    - SRCNN, EDSR, RCAN
    - SRGAN, ESRGAN
    - SwinIR, Vision Transformers
    - Diffusion Models
  - Evaluation Metrics:
    - PSNR (40%)
    - SSIM (30%)
    - Generalization (15%)
- **Computer Vision:**

- **Problem Statement:** Classroom Crowd Detection & Student Counting.
- Participants built automated systems to detect students in classroom images and estimate accurate counts.
- Evaluation Metrics:
  - mAP (50%)
  - MAE (50%)
- Deliverables included bounding boxes, student count predictions, and model inference code.

- **Time Series & Forecasting:**
  - **Problem Statement:** Multi-Horizon Forecasting for Gold & Silver Futures.
  - **Participants developed quantitative models to forecast:**
    - 1-day return
    - 30-day return
    - 6-month return
    - Additionally, teams converted predictions into systematic trading strategies.
  - **Evaluation Metrics:**
    - RMSE (30%)
    - Sharpe Ratio (30%)
    - Multi-horizon robustness (15%)
    - All models followed strict data-split rules and transaction cost considerations.

3: Evaluation & Finalists

- The models were evaluated primarily based on accuracy, performance metrics, robustness, and presentation clarity. The evaluation was conducted by Mr. Purushotham.
- After rigorous assessment, the following 5 teams were finalized:
  - S3K
  - TEAM 4 VISIONARIES
  - FUTURE CAST AI
  - GSM
  - SHOURYANGULU

4: Presentations

- All participating teams presented their models through detailed PPT presentations.
- **They explained:**
  - Problem understanding
  - Model architecture
  - Training methodology
  - Evaluation metrics
  - Results and performance analysis

- The presentations showcased innovation, technical depth, and real-world applicability.

Hackathon Conclusion

- After a rigorous and comprehensive evaluation process, the final results of the MODEL FORGE Hackathon were declared. The judging panel comprising Mr. S. Sathish, Assistant Professor, Mr. M. Purushotham, Assistant Professor, Ms. P. Maria Divya Teja, Assistant Professor, and Ms. B. Sangeetha, Assistant Professor, evaluated the shortlisted teams fairly and impartially based on model accuracy, technical implementation, innovation, methodology, and presentation.
- From the five shortlisted teams, two teams were selected as the Winner and Runner-up of the hackathon.

  🏆 **Winner: SHOURYANGULU**

  🥈 **Runner-up: TEAM 4 VISIONARIES**
- The winners and runner-up were congratulated for their outstanding performance, technical excellence, and innovative approach. Their solutions demonstrated strong analytical thinking, model optimization, and effective presentation skills.
- The organizing committee also extended appreciation to all participants for their enthusiastic involvement, competitive spirit, and dedication throughout the 7-hour hackathon. Every team showcased commendable effort and learning.
- Special appreciation was conveyed to the Faculty Organizers for their guidance and support:
  - Dr. G. Kumar, HOD – AI & ML Department
  - Mr. S. Sathish, Assistant Professor
  - Mr. M. Purushotham, Assistant Professor
  - Ms. P. Maria Divya Teja, Assistant Professor
  - Ms. B. Sangeetha, Assistant Professor
- Their mentorship and coordination ensured the smooth and successful conduct of the event.
- The contributions of the Student Organizing Team were also highly acknowledged:
  - Shaik Mohammed Affan – Main Lead
  - John Dinakar – Technical & Photography Lead
  - Mohammed Umairuddin – Web Designer & Videography Lead
  - Syed Tabrez Hussain – Editor Lead

- Their dedication, teamwork, and continuous efforts played a vital role in making MODEL FORGE a grand success.
- The event concluded on a celebratory and inspiring note, reinforcing the institution’s commitment to fostering innovation, collaboration, and excellence in Artificial Intelligence and emerging technologies.

SAMPLE CERTIFICATES OF PARTICPANTS

JB INSTITUTE OF ENGINEERING & TECHNOLOGY
(UGC Autonomous)
Yenkapally(V), Moinabad(M), R.R.District, Hyderabad-500075 @www.jbiet.edu.in

CERTIFICATE

OF APPRECIATION

This certificate is proudly presented to :

N. Kavishik Suryavarma

This certificate is awarded in recognition of outstanding achievement as the Winner of the **MODEL FORGE HACKATHON**, conducted at J.B. Institute of Engineering and Technology (JBIET), showcasing exceptional innovation, teamwork, and excellence in applying technical knowledge to solve real-world challenges.

G. Kumar
HOD of AIML, JBIET

Dr. V. Venkata Krishna
Dean CSE, JBIET

Dr. P. C. Krishnamachary
Principal, JBIET

JB INSTITUTE OF ENGINEERING & TECHNOLOGY
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Yenkapally(V), Moinabad(M), R.R.District, Hyderabad-500075 @www.jbiet.edu.in

CERTIFICATE

OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO :

Syed Baqer Ali Moosavi

This certificate is awarded in recognition of participation in the **MODEL FORGE HACKATHON**, conducted at J.B. Institute of Engineering and Technology (JBIET), highlighting innovation, collaboration, and the application of technical knowledge to **real-world problem solving.**

G. Kumar
HOD of AIML, JBIET

Dr. V. Venkata Krishna
Dean CSE, JBIET

Dr. P. C. Krishnamachary
Principal, JBIET