

Proposal for announcing seat under the Institute Internship Program
(separate form to be filled for seat under Institute funding and project funding)

1. **Name of faculty member proposing:** Dr. Namita Mittal
2. **Department/Centre:** Department of Computer Science and Engineering
3. **Topic on which work is proposed:** Chatbot using LLM
4. **Preferred period of internship (after May 20th):** Between 20 May 2024 to 30 June 2024
5. **Qualification of student (branch/semester of study):** B.Tech (CSE/AIDE) – Fourth Sixth/Eighth semester

6. Brief description of work (300-500 words):

The project entails developing a chatbot utilizing a Large Language Model (LLM) capable of processing both text and images to respond to user queries in natural language. This chatbot will leverage deep learning techniques to understand information from both textual and visual inputs, facilitating semantic relationships between the multimodal data. Additionally, the project also entails creating a knowledge base that can be updated with new information. This knowledge base will serve to streamline conversations between users and the chatbot, providing seamless access to data.

7. Expected learning of student (upto 100 words):

- Extensive knowledge and hands-on experience in deep learning techniques, particularly in the context of natural language processing (NLP) and computer vision.
- Learn about techniques like attention mechanisms and multimodal fusion networks to effectively combine information for improved understanding.
- Learn about techniques for text preprocessing, semantic analysis, and intent recognition to accurately interpret user questions.
- Gain practical experience in project management methodologies and teamwork.

8. Nature of work: (Experimental/simulation/mathematical modelling/data collection-analysis etc.): upto 50 words

The project entails developing a multimodal deep learning model integrating the understanding of both text and image. It involves theoretical modeling, experimental implementation, dataset collection, model training, knowledge base construction, and evaluation. Emphasis is on optimizing performance and updating the knowledge base for accurate and up-to-date responses.

9. If the seat is under project sponsored category: Yes
 - a) If yes, number of seats announced: 1
 - a) Name and ID no. of project from which stipend is chargeable a user friendly Chatbot system as an interface for information extraction in Natural language
 - b) 10 K per month

Dr. Namita Mittal
Department of CSE

Note:

- a) Proposing faculty member needs to be available at the Institute during the period internship is offered
- b) No extra space or funding than the stipend will be provided by the institute for this purpose