SEMINAR TOPICS

Following are the topics from which the students have to choose for the seminar paper for the 3rd semester:

| Sl No. | <u>Name</u> | Topic |
|-----------|--------------------------------|--|
| 1. | Prof. Anjana Kakoti Mahanta | 1. Finding influential users from WhatsApp groups. |
| | | 2. Expanding the recommendation system designed by Kaustav Deka (pass out batch 2022) for Assam's Brash and Bell metal utensils. |
| | | 3. Classification of hand woven and machine made mekhela-chaddar, using ML methods and Image Processing techniques. This will involve creating labelled data manually. |
| | | 4. Sentiment / Emotion Mining from Twitter data or other social media data.5. Classification of flowers and vegetables according to monkey's affinity for |
| | | them, using ML methods by creating labelled data of local flowers and vegetables. |
| | | 6. Detection of Fake news/ propaganda using ML. |
| 2 | Dr. Caniih Vr. Valita | 1. Image Processing using Machine Learning |
| 2. | Dr. Sanjib Kr. Kalita | 2. Speech Processing using Machine Learning |
| 3. | Dr. Hasin A. Ahmed | 1. Smart City |
| | | 2. Artificial Neural Network in Healthcare |
| | | 3. Artificial Neural Network in Agriculture |
| | | 4. Artificial Neural Network in Regression Analysis |
| 4. | Mr. Dwipen Laskar | 1. Gait Analysis |
| | | 2. Precision Agriculture in Irrigation |
| | | 3. Precision Agriculture in Pest Control and Disease Detection |
| | | 4. Addressing Human Animal Conflicts using Machine Learning |
| 5. | Dr. Irani Hazarika | Musical Pattern Feature Extraction using CNN |
| | | 2. Music Genre Classification |
| | | 3. Interval Data Classification |
| | | 4. Compiler Design |
| 6. | Dr. Pranamika Kakati | 1. Image Processing |
| | | 2. Neural Networks |
| 7. | Dr. Kalyanbrat Medhi | 1. High security number plate detection |
| | | 2. AI in Healthcare |
| | | 3. Wild Text Recognition |
| | | 4. Scientific Symbol Recognition |
| 8. | Mr. Diganta Kumar Pathak | 1. Semantic Segmentation |
| | | 2. Image transformation (using cycleGAN) |
| | | 3. Data augmentation using Generative Adversarial Networks |
| 9. | Mr. Risheraj Baruah | 1. Medical Image Segmentation |
| | | 2. Degraded Image Restoration |
| 7. | | 3. Image Classification using Neural Networks |
| | | 4. Application Benchmarking |

^{*}Students are suggested to opt for the topic such that it can be carried forward as a Project in the next semester.