



The banner features the GIAN logo (Global Initiative of Academic Networks) on the left, with logos of participating institutions. The central text reads "GIAN Course on Data and Text Mining in Bioinformatics" in a stylized font. On the right, it lists the international faculty as Prof. Mathew J Palakal from Indiana University-Purdue University Indianapolis (IUPUI), USA. It also mentions the organizing department at NIT Calicut and the sponsoring ministry, MHRD, Govt. of India. The dates "September 10-14, 2018" are displayed at the bottom in red.

Tentative Course Schedule

Day 1: 10-09-2018

09:30-10:00 Inaugural Session

Chief Guest: **Dr. Sivaji Chakravorti**
Director, NIT Calicut

10:00-10:30 Tea Break

11:00-12:30 Introductions and NLP Overview

12:30-13:45 Lunch break

14:00-15:30 BioMap: A BioNLP Case Study

15:30-17:30 Lab

- Install NLTK tools
- Collect abstracts from PubMed; Preprocess abstracts
- Project discussions

Day 2: 11-09-2018

09:00-10:30 Parts of Speech Tagging (POS)

10:30-11:00 Tea Break

11:00-12:30 Named Entity Recognition (NER)

12:30-13:45 Lunch break

14:00-17:00 Lab

- Train POS Tagger using MedPost
- POS Tagger and extracting words with Noun forms
- Hosting UMLS data on SQL Server.

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Day 3: 12-09-2018

09:00-10:30 Semantic Role Labelling (SRL)

10:30-11:00 **Tea Break**

11:00-12:30 Document clustering

12:30-13:45 **Lunch break**

14:00-17:00 **Lab**

- Utilize UMLS Database to identify genes and proteins.
- Generate CSV file with all the genes and proteins.

Day 4: 13-09-2018

09:00-10:30 Deep Learning

10:30-11:00 **Tea Break**

11:00-12:30 **Lab:** Install Deep Learning tools

12:30-13:45 **Lunch break**

14:00-17:00 **Lab**

- Perform DL on biological sentences
- Work on project

Day 5: 14-09-2018

09:00-10:00 Bioinformatics Research @CSED-NITC

10:00-10:30 **Tea Break**

10:30-11:00 **Evaluation**

11:00-12:30 Work on Project

12:30-13:45 **Lunch break**

13:45-15:15 Project presentations

15:15-15:30 **Tea Break**

15:30-17:00 Feedback from the Participants

Concluding Remarks by Prof. Mathew J Palakal

Valedictory