Course Instructor: Dr Chiranjib Sur

Course Webpage: https://chiranjibsuruf.github.io/courses/da262.html

Email: chiranjib@iitg.ac.in

Objectives:

Prerequisites:

Course Code: DA262

Course Name: Recommender Systems

Credits: 3-0-0-6

Syllabus: Introduction to Recommender Systems; Traditional Recommendation Techniques: Nearest neighbor-based, associative rule-based, content-based filtering, collaborative filtering; Matrix Factorization Techniques: Introduction, SVD review, alternating least squares, non-negative matrix factorization; Advanced Recommendation Techniques: Context-aware, hybrid, model-based methods; Evaluation metrics and methodologies; Recommender System Challenges: Cold start problem, data sparsity, scalability, privacy, and explainability; Case Studies and Applications: E-commerce, social media, multimedia, and other domains; Ethical Considerations in recommendation systems.

Textbooks:

- Charu C. Aggarwal, Recommender Systems: The Textbook, First Edition, Springer, 2016.

- Jannach D., Zanker M., and Fel Fering A., Recommender Systems: An Introduction, First Edition, Cambridge University Press, 2011.

References:

- To be updated as required.