

**UNIVERSIDADE ESTADUAL DE MARINGÁ  
CENTRO DE TECNOLOGIA  
DEPARTAMENTO DE INFORMÁTICA  
PROGRAMA DE PÓS-GRADUAÇÃO EM CIÊNCIA DA COMPUTAÇÃO**

**PROGRAMA DE DISCIPLINA**

Disciplina: Topics in Computational Intelligence

Código: DIN4074

Carga Horária: 30

Ano Letivo: 2017

Curso: Master Degree in Computer Science

### **1. EMENTA**

Course with a variable program to introduce new concepts aiming to contemplate subjects to consolidate the research area.

### **2. OBJETIVOS**

The goal of this course is to present the main concepts and techniques about recommender systems in web sites.

### **3. PROGRAMA**

1. Introduction to Recommender Systems
  - a. Definition, History, Examples, Paradigms, Strategies, Tools, Etc
2. Collecting Data for Recommender Systems
  - a. Explicit and Implicit Data
3. Non-Personalized Recommender Systems
4. Collaborative Filtering Recommender Systems
  - a. User-Based Filtering
  - b. Item-Based Filtering
  - c. Association Rules
  - d. Slope One
5. Content-Based Recommenders
6. Knowledge-Based Recommender Systems
  - a. Constraint-Based Systems
  - b. Case-Based Systems
7. Hybrid Recommender Systems
8. Evaluating Recommender Systems
9. Explanation in Recommender Systems
10. Advanced Topics in Recommender Systems
  - a. A Context-Aware Recommender System
  - b. A Hybrid Music Recommender System

#### **4. BIBLIOGRAFIA**

Jannach, D., Zanker, M., Felfernig, A., Friedrich, G. *Recommender Systems: An Introduction*, Cambridge University Press, 2010.

Ricci, F., Rokach, L., Shapira, B., Kantor, P. B. *Recommender Systems Handbook*, Springer US, 2011.

Liu, B. *Web Data Mining: Exploring Hyperlinks, Contents, and Usage Data (Data-Centric Systems and Applications)*, 2nd Edition, Springer, 2011.

*Recommender Systems Wiki* ([http://www.recsyswiki.com/wiki/Main\\_Page](http://www.recsyswiki.com/wiki/Main_Page)).

*ACM Conference on Recommender Systems* (<https://recsys.acm.org>).