

Recommender Systems

- Organization -

Institute for Software Technology
Inffeldgasse 16b/2
A-8010 Graz
Austria

Cooperation Between TU Graz and Alpen-Adria-University (AAU) Klagenfurt



- Lecture offered by TU Graz and also offered to AAU
- Idea: concentration of teaching resources
- Beside courses: further seminars and presentations shared on the basis of new technical infrastructure

Persons

- Univ.-Prof. DI Dr. Alexander Felfernig



- Assoc.Prof. DI. Dr. Denis Helic



- DI Dr. Martin Stettinger



- DI Dr. Christoph Trattner



Course Goal

- ➔ Overview of basic recommendation technologies.

Overview of Topics

| | | |
|--------|---|--------------|
| 01.06. | 09:00 – 09:45: Introduction | (Stettinger) |
| 01.06. | 09:45 – 11:00: Collaborative Filtering (VO+UE) | (Stettinger) |
| 01.06. | 11:00 – 12:00: Content-based Filtering (VO+UE) | (Stettinger) |
| 02.06. | 10:00 – 13:00: Further Approaches (VO+UE) | (Trattner) |
| 08.06. | 09:00 – 12:00: Knowledge-based Recommendation (VO+UE) | (Atas) |
| 08.06. | 15:00 – 16:30: Group Recommender Systems (VO) | (Atas) |
| 08.06. | 16:30 – 17:30: Group Recommender Systems (UE) | (Atas) |
| 09.06. | 09:00 – 12:00: Matrix Factorization (VO+UE) | (Helic) |
| 22.06. | 09:00 – 10:30: Exam | |

Tasks

Lecture (VO) and (UE) Exercises are organized as VU.

- Exercises (to be solved in the course)
- Each team has to present at least once (max. 30 points)
- Teams of 4-5 students
- Per team at least one laptop is needed
- Exam at the end of the course (max. 70 points)
- Send group information (firstname + lastname + Matr.Nr.)
to: martin.stettinger@ist.tugraz.at

Evaluation

| Parts | Max. Points |
|---|-------------|
| presentation of solutions (at least once, one very good presentation = 30 points) | 30 |
| exam | 70 |

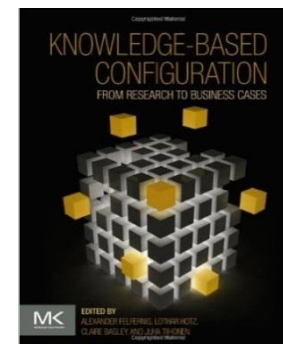
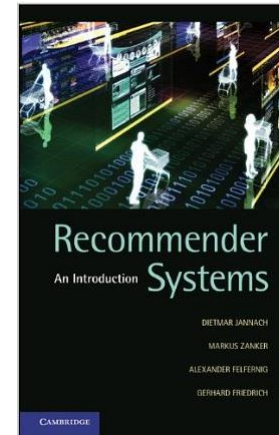
| Points | Mark |
|------------|------|
| 87,5 - 100 | (1) |
| 75 - <87,5 | (2) |
| 62,5 - <75 | (3) |
| 50 - <62,5 | (4) |
| <50 | (5) |

Exam Topics

- One question out of each topic:
 - Collaborative Filtering (14P)
 - Content-based Filtering & Further Approaches (14P)
 - Knowledge-based Recommendation (14P)
 - Matrix Factorization (14P)
 - Group Recommender Systems (14P)

Course Material

- D. Jannach, M. Zanker, A. Felfernig, and G. Friedrich. Recommender Systems – An Introduction, Cambridge University Press, 2010 (*can be found in library*).
- Lecture slides and slides from recommenderbook.net.
- A. Felfernig, L. Hotz, C. Bagley, and J. Tiihonen. Knowledge-based Configuration – From Research to Business Cases, Elsevier/Morgan Kaufmann, 2014.



Thank You!