Comparative analysis of selected programmes of study

ICT Working group

Teslić, 16-17 April 2014

Selected programmes of study

- **Computing and information sciences**(RI_ETF_UNBL)

Faculty of Electrical Engineering, University of Banja Luka

- **Compting and information sciences** (RI_ETF_UNSA)

Faculty of Electrical Engineering, University of Sarajevo

- **Electrical engineering and computing** (RI_ETF_UNTZ)

Faculty of Electrical Engineering, University of Tuzla

- **IT** (IT_FIT_UNMO)

Faculty of Information Technologies, Dzemal Bijedic Univerzity Mostar

- **Mathematics and information sciences** (INF_PMF_UNBL)

Faculty of Natural Sciences and Mathematics, University of Banja Luka

Titles and levels of qualification

- Computing and information sciences (RI_ETF_UNBL), 240 ECTS

Graduate electrical engineer, programme in computing and information science

- Computing and information sciences (RI_ETF_UNSA), 180 ECTS

Bachelor/electrical engineer, Department of comuting and information sciences

- Electrical engineering and computing (RI_ETF_UNTZ), 240 ECTS

Bachelor/electrical enginer

- IT (IT_FIT_UNMO), 180 ECTS

Bachelor in IT

- Mathematics and infofrmation sciences (INF_PMF_UNBL), 240 ECTS

Mathematics (high-school) professor

All the qualifications are at level VI

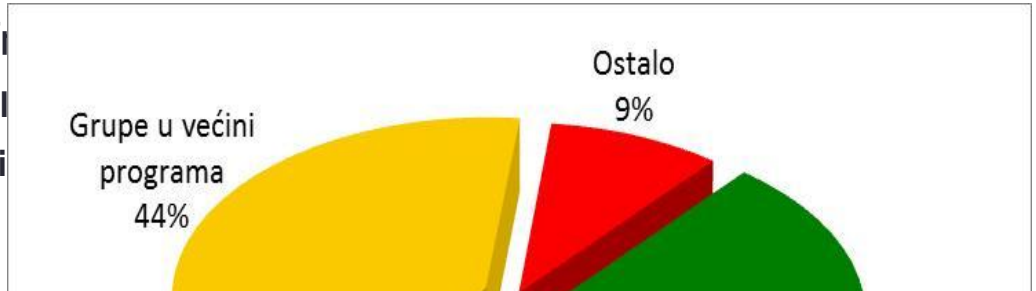
Scope of ECTS credits: 180-240

Methodology

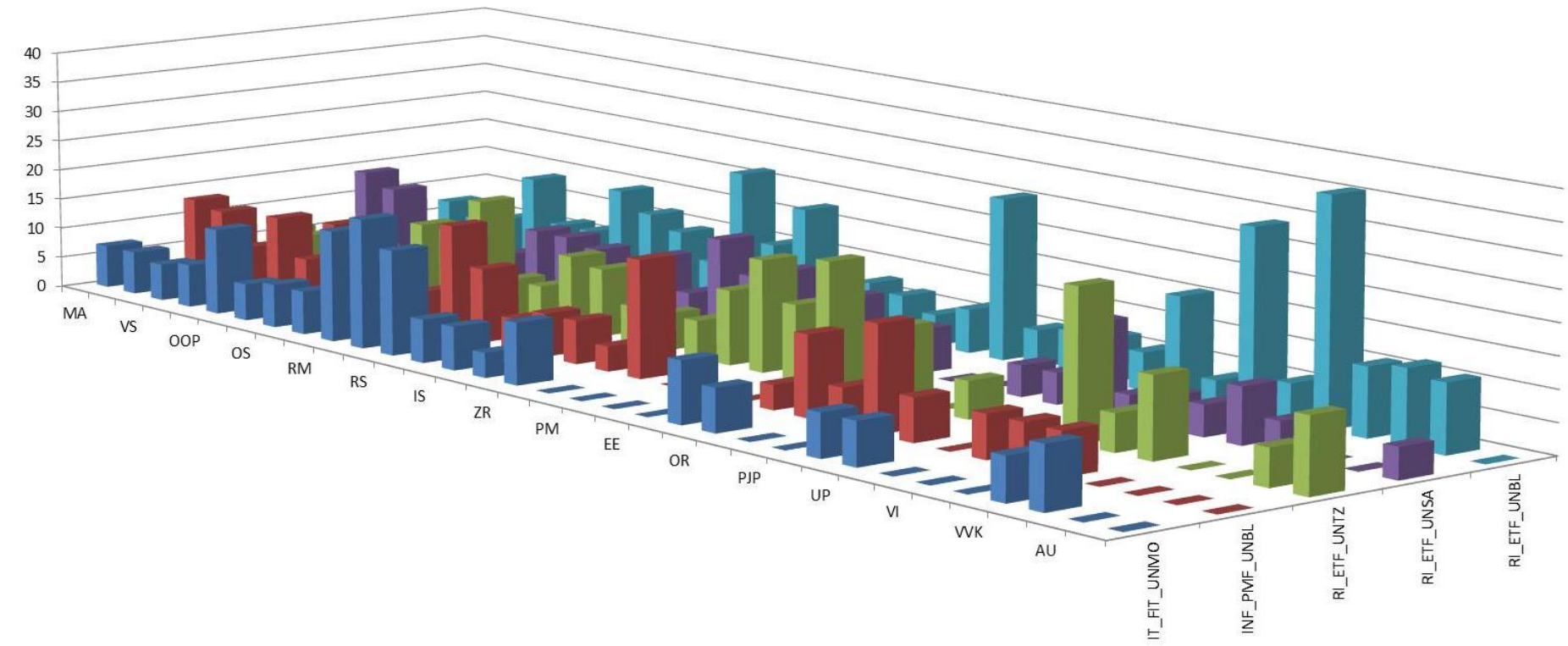
- An analysis of the selected programmes of study identified 32 groups of affiliated subjects
- Subjects in the programmes analysed (some 200) were sorted into groups as identified
- We noted three key groups:
  - **Groups of subjects present in all the programmes analysed**
  - **Groups of subjects present in most of the programmes analysed**
  - **Groups of subjects present in few of the programmes analysed**
- We did not consider:
  - **Subjects present in individual programmes only**
  - **Subjects outside the ICT field (other than English)**

Comparative analysis results

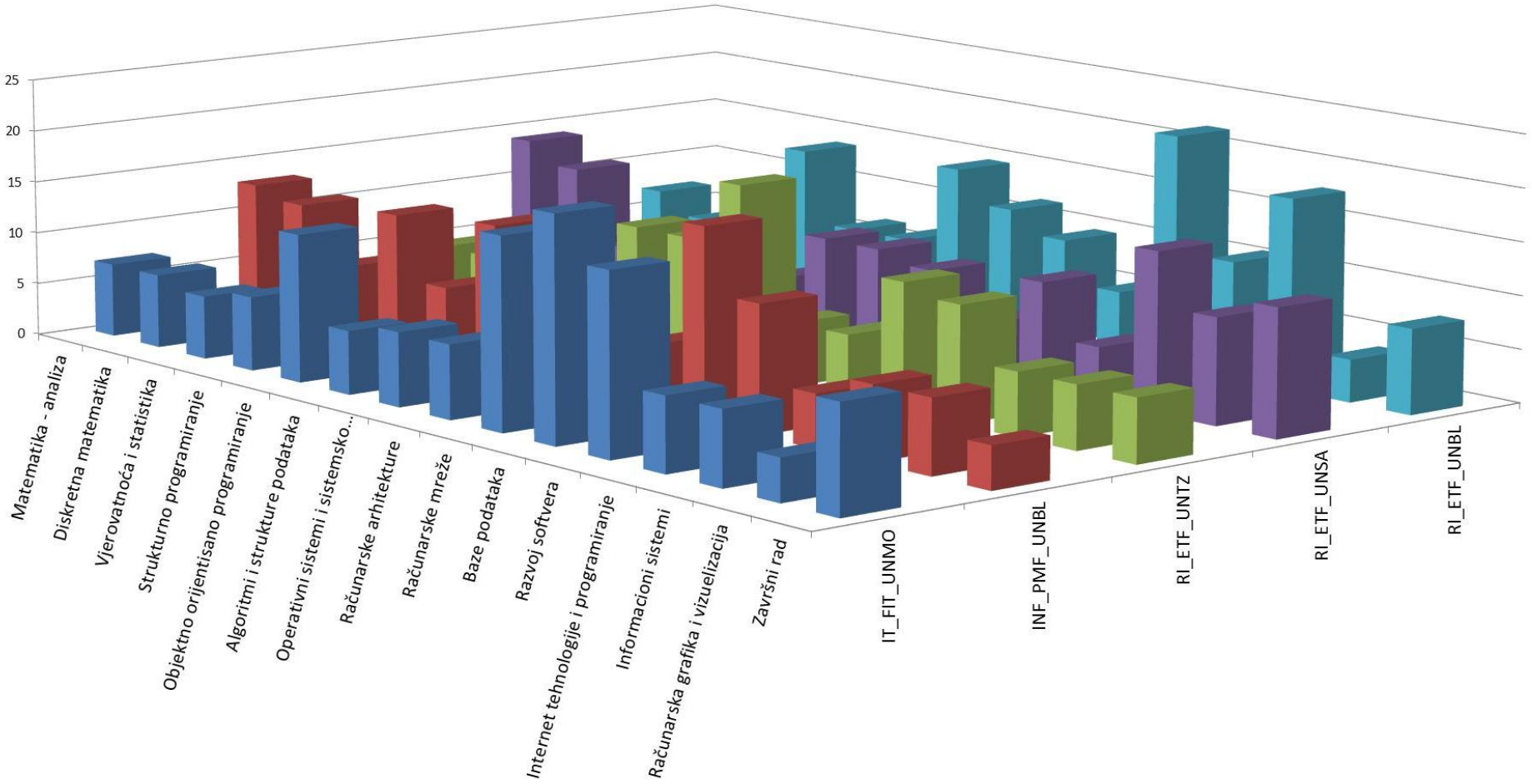
- We considered the number of subjects and the number of credits within each group of subjects in each programme of study.
- We noted that in 47% of groups of subjects present in all the programmes:
  - **These are groups that contain subjects that provide for basic ICT knowledge,**
  - **There is a high level of correspondence in terms of content,**
  - **There are differences in the number of subjects per group, the number of ECTS credits, and distribution in semesters.**
- In 44% of groups of subjects present in 60-80% of the programmes:
  - **There is a considerable level of harmony in terms of content.**
- In 9% of groups of subjects present in less than 50% of the programmes:
  - **Correspondence exists only in closely affiliated programmes of study.**
- The differences identified come fr
  - **Different specific parts of the ICT fiel**
  - **Different ranges of volume of ECTS i**



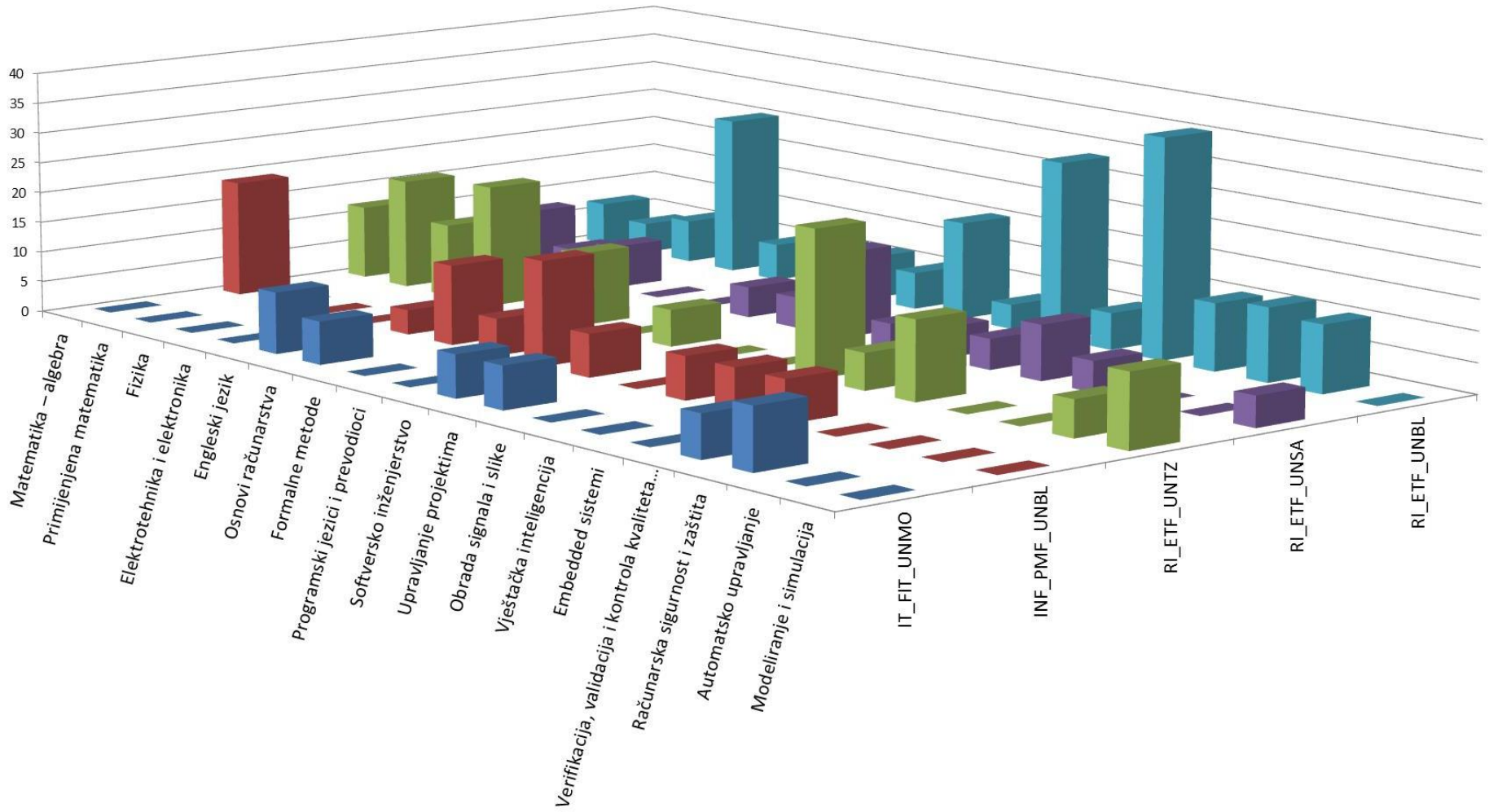
Distribution of ECTS by groups of subjects and programmes of study



Distribution of ECTS by groups of subjects present in all the programmes



Distribution of ECTS for other groups of subjects



Conclusion

- Representativeness of the sample:
  - **All the five programmes considered are offered at public universities,**
  - **Three programmes are offered at faculties of electrical engineering, one in the field of IT and one at a faculty of natural sciences and mathematics**
- The differences identified come from:
  - **Different specific parts of the field of ICT that the programmes belong to**
  - **Different ranges of volume of ECTS in the programmes analysed**
- Irrespective of the differences idnetified, the programmes considered here have a high level of correspondence with international recommendations:
  - **IEEE/ACM**
  - **EuroInf**
- Problems in the work of the group:
  - **The work included 7/19 members of the working group**