

HABILITATION THESIS REVIEWER'S REPORT

Masaryk University

Applicant

RNDr. Jan Sedmidubský, Ph.D.

Habilitation thesis

Content-Based Processing of Human Motion Data

Reviewer

Prof Sonia Bergamaschi

Reviewer's home unit, institution

Dipartimento di Ingegneria "Enzo Ferrari", Università degli Studi di Modena e Reggio Emilia

The candidate fulfills all the minimum criteria of requirements for habilitation procedures at FI MU.

In particular:

- The original results in peer-reviewed international scientific forums the number of results amounts to 35 plus 6 software products that implement the theoretical results of the publications
 - o From which 7 in journals and more than ten in top-ranking conferences IEEE and ACM on Multimedia
- The number of citations (excluding self citations in SCOPUS since 2015) is 218
- The individual pedagogical experience consists of: 7 lectures, 14 class exercises and laboratory, 9 bachelor and 8 master thesis supervision and collaboration in supervising 4 doctoral candidates (who completed the Phd). More, he provided E-learning material for courses on Databases, search techniques for large scale data analytics.

The habilitation thesis consists of a collection of the ten most significant previously published scholarly works and of a commentary clearly and extensively explaining the problem faced, the methods and techniques adopted. Notably, the candidate clarifies the evolution of his research activity on the very complex problem of modeling human mobility data up to the achievement of significant scientific results.

I greatly appreciated the intellectual honesty of the applicant, who explained how the results of his research activity were obtained in collaboration with other researchers, highlighting the percentage of individual contribution for each work included in the thesis.

It is also appreciable his software development activity, fundamental to verify "on the field" approaches and techniques developed in theoretical works. The applicant has also fruitfully cooperated with international institutions.

Reviewer's questions for the habilitation thesis defence (number of questions up to the reviewer)

- to what extent do you think the software development activity has been important for your research activity?
- to what extent has machine learning affected the results of your research activity?
- to what extent do you think the ongoing trial for the treatment of patients suffering from cerebral palsy disease will affect your future research activity?
- What are the future challenges of your research activity?

Conclusion

The habilitation thesis entitled "Content-Based Processing of Human Motion Data" by RNDr. Jan Sedmidubský, Ph.D., **fulfils** the requirements expected of a habilitation thesis in the field of Informatics.

Date: 16/07/2021

Signature:

