

Annex 8: Habilitation Board's proposal for conferring Associate Professor degree

Masaryk University	
Faculty	Faculty of Informatics
Field of habilitation	Informatics
Applicant	Parag Kulkarni , Ph.D., D.Sc.
Affiliation	Faculty of Informatics Masaryk University
Habilitation Thesis	Knowledge Management and New Paradigm of Advanced Machine Learning
Habilitation Board	
Chairperson	prof. RNDr. Luděk Matyska , CSc. Masaryk University – Faculty of Informatics
Members	prof. Ing. Václav Hlaváč , CSc. Czech Technical University in Prague – Faculty of Electrical Engineering
	Ing. Jan Šedivý , CSc. Czech Technical University in Prague – Faculty of Electrical Engineering
	prof. Ing. Tomáš Vojnar , Ph.D. Brno University of Technology – Faculty of Information Technology
	prof. Ing. Pavel Zezula , CSc. Masaryk University – Faculty of Informatics

Applicant's scholar qualification evaluation

Parag Kulkarni, PhD, DSc has been awarded his PhD degree at IIT (Indian Institute of Technology Kharagpu) at 2001, with a dissertation thesis "Strategies for dynamic load balancing on network of workstations (Based on AI technique)". In 2011 he received a DSc certificate from Monarch Business School in Switzerland (according to the information from Monarch, this degree is rather equivalent to a PhD). Since 2011, he has been working as a visiting assistant professor at the Department of Computer Systems and Communications at the Faculty of Informatics, Masaryk University, where he is responsible for lectures in the area of Service Science and Knowledge Management.

The candidate works primarily in the field of knowledge management and machine learning, but his publications cover a wider scope of scientific disciplines. In the time of submission of his habilitation thesis, the candidate listed 3 books (Oxford University Press and Wiley-IEEE), 15 journal publications and 47 contributions at international conferences. He also holds one US patent, one provision and one patent application. The candidate declares

successful contributions in several industrial projects and his activity as an entrepreneur and co-founder of one startup where he contributes as a chief scientist. While the numbers of outcomes of the candidate's scientific work are above average, the habilitation board observes that only very few of the declared publications are listed in Scopus or Web of Science databases. Also, most of the listed publications do not have a deep scientific focus.

At the time of the submission of the habilitation thesis the applicant claims 37 international citations of his work (49 including national references). The applicant's current Google Scholar profile lists a total of 121 citations (including self-citations). Given the number and scope of publications, this number of citations is rather low, below expectations.

The applicant has served in several conferences as a member of the organizing or program committee. He lists technical or working committee memberships with several WSEAS and IASTED conferences. He has also been active as a chairman of special sessions at IICAI conferences in years 2009 and 2011. The candidate is presenting a list of 28 plenary and invited lectures, but most of them were of local or national level, including locally organized workshops. During his career he has been working at several universities and research institutes worldwide, staying extended periods of time abroad.

The applicant lists 10 R&D projects in which he was involved, but most of them are either of unclear scope or they have a form of working for a company. It is impossible to distinguish involvement in a project that went through a competitive peer reviewed process before being accepted and ones that were ordinary business activities for a company.

Taking into account all the scholarly and scientific work done by the applicant, the habilitation board concluded that the applicant's work lacks deep scientific focus and is of very limited impact. As such, it is below expectations for the field of Informatics.

Conclusion: *Applicant's scholar qualification does not meet MU standard requirements for an applicant in habilitation procedure in the field of Informatics.*

Applicant's teaching abilities assessment

Dr Kulkarni joined Faculty of Informatics in 2011 and since that time he gave two courses, each taught twice:

- Service Oriented Architecture (PV217), Spring 2012 and Autumn 2013
- Understanding Knowledge Management for Building Knowledge Efficient Organization – An IT Perspective (PV238), Autumn 2012 and Autumn 2013

During his stays with FI MU he never supervised any thesis.

The applicant lectured or is still giving lectures at several universities. Since 2003, he lists 8 places of work. With one exception—the USGM Monarch Business School in Switzerland—all the places are in India (several schools of Pune University, IIM Indore, Bharati Vidyapeeth, PICT). In parallel to his affiliation with FI MU he keeps a title of Adjunct Professor at PICT. The applicant lists 15 graduated (Master and PhD level) and 2 undergraduate courses he had taught, including FI MU.

The applicant supervises 7 PhD students at several universities in India, and he also mentions two PhD graduates. He supervised 5 bachelor and the same number of master theses.

He served or serves at 3 Research and Recognition Committees (Doctoral level) and three Boards of Studies at Bharati Vidyapeeth or Pune University.

The habilitation board concludes that the applicant demonstrated a wide teaching experience and involvement, the only concern of the board is that the low quality of the applicant's public habilitation lecture at FI MU contrasts the extent (quantity) of his teaching experience.

Conclusion: Applicant's teaching abilities *do* meet MU standard requirements for an applicant in habilitation procedure in the field of Informatics.

Applicant's habilitation thesis report

Dr Kulkarni submitted a habilitation thesis "Knowledge Management and New Paradigm of Advanced Machine Learning" that is a set of his 9 publications with a commentary.

The habilitation thesis has been reviewed by the following three reviewers:

- Prof. Ing. Petr Berka, CSc., Department of Information and Knowledge Engineering, Faculty of Informatics and Statistics, University of Economics, Prague
- Prof. Ing. Václav Hlaváč, CSc., Department of Cybernetics, Faculty of Electrical Engineering, Czech Technical University, Prague, member of the habilitation board
- Prof. RNDr. Jiří Zlatuška, CSc., Department of Computer Science, Faculty of Informatics, Masaryk University, Brno

One of the reviews was positive, one was positive but with reservations and the third was negative. The negative review focuses on the complementary text and a mismatch of its content with the work actually published in the papers that form the habilitation thesis.

The diversified views on the submitted habilitation can be clearly demonstrated through the following excerpts from the individual reviews:

- Prof. Karel Berka: *The thesis shows the ability of Dr. Kulkarni to carry out scientific work in the field of computer science on an internationally acknowledged level, it shows his ability to elaborate, present and disseminate new ideas. The habilitation thesis fulfills all the requirements given on such type of work and I recommend the thesis for defense.*
- Prof. Václav Hlaváč: *The applicant's research interests are rather broad. He approaches problems from a multidisciplinary standpoint. He also changes research topics quite often. The natural consequence is that it is rather difficult to find a deep contribution in one or two of the topics.*

- Prof. Jiří Zlatuška: *Formal as they may be, requirements for the habilitation procedure assume both research and teaching skills, and later cannot be in contradiction with the only part of the habilitation thesis to which it applies. This is a matter of self-containment of the commentary rather, not an objection to the work presented in the set of papers. As a habilitation thesis, this nonetheless does not qualify.*

The individual reviewers have the following questions to the applicant:

1. Semi-supervised learning is not the only approach to machine learning that uses both labeled and unlabeled examples. Another idea is active learning, where the algorithm also tries to get labels for previously unlabeled examples. Where do you see main similarities and differences between these approaches?
2. What is the main innovative aspect of the patent, publication 7 in the thesis?
3. On a concrete level of techniques used and/or what are the features substantiating the “holistic” claim, making it verifiable/refutable?
4. Compare the quality of “smartness” when it comes to systems and when it comes to businesses or even societies. Are there concepts being directly shared among these levels of abstractions?

Conclusion: Applicant’s habilitation thesis level *does not* meet MU standard requirements for a habilitation thesis in the field of Informatics.

Comments on the Public Habilitation Lecture

Four members of the habilitation board (Prof. Vojnar, Ing. Šedivý, Prof. Hlaváč, and Prof. Matyska) attended applicant’s public habilitation lecture that has been presented on 23rd October 2012. The lecture was moderately attended, with 36 persons present. The members of the habilitation board concluded the following:

The applicant in his lecture proved a strong enthusiasm for the presented content. However, the lecture had a rather wide scope, more at a level of some popularization or even marketing speech. The lecture did not cover sufficiently deep explanation of the presented work and the results achieved, using methods that are common for the Informatics. This fact is rather surprizing taking into account the number of books and other publications authored or co-authored by the applicant.

As a result, the present habilitation board members concluded that the public lecture did not prove sufficiently the scholar and teaching abilities of the applicant, as required in the scope of the habilitation process in the field of Informatics.

Board's voting by ballot result

Number of board's members		5
Number of board's members present the ballot		5
Number of cast votes		5
Out of which	positive	1
	negative	4
	mutilated	0

Board's proposal

Based on the result of ballot following the evaluation of applicant's scholar / artistic qualification, teaching abilities and habilitation thesis quality the Board makes the Scientific Board of the Masaryk University Faculty of Informatics

appoint the applicant Associate
Professor in the field of Informatics

terminate the procedure

prof. RNDr. Luděk **Matyska**, CSc.

prof. Ing. Václav **Hlaváč**, CSc.

Ing. Jan **Šedivý**, CSc.

prof. Ing. Tomáš **Vojnar**, Ph.D.

prof. Ing. Pavel **Zezula**, CSc.

In Brno on 7. 11. 2013

