

Informacije i iskustva sa stručnog usavršavanja u Švedskoj

Doc. dr Boško Blagojević

Departman za Uređenje voda Poljoprivredni fakultet u Novom Sadu





Mesto: Umea, Švedska

Institucija: Swedish University of Agricultural Sciences, Faculty of Forest Sciences, Department of Forest Biomaterials and Technology

Period boravka: 04.09.2017. - 01.09.2019.

Naziv pozicije: Postdoc Researcher – full time job



Ogromna zahvalnost:

Departman za uređenje voda

Dekanat





Sveriges lantbruksuniversitet Swedish University of Agricultural Sciences

Faculty of Forest Sciences

Postdoc - Multi-objective evaluation of logging and transportation systems

In the transition to a biobased economy, it is essential that forestry considers other ecosystem services than wood production to a greater extent than in current practice. This will increase the complexity in forestry, since the forest management will have to be even more sophisticated to meet several goals simultaneously. To enable this in practice, there is a need for new ways to evaluate how forest operations are conducted. Traditionally, the focus has been on the cost efficiency of executed work and of the machine systems used, but in the future also other aspects will be considered essential to include in evaluations. To combine and prioritize several and sometimes opposing goals will be a challenge.

The project is part of SLU's research school *Bioeconomy-adapted forest management*, and its forest operations part *FIRST2* (http://www.slu.se/first). This means that you will be part of a global network within the field of forest operations and forest management. The department of *Forest Biomaterials and Technology* (SBT) (www.slu.se/sbt) has about 40 employees. SBT carries out high quality research, undergraduate and postgraduate education on an international level and collaborates with society and industry to develop a bio-based economy in which forest biomaterials becomes very important. SBT's focus is on forest value chains in the bio-based industry, where different forest biomaterials are harvester and processed for different purposes, while forest ecosystem services are managed sustainably.

Duties:

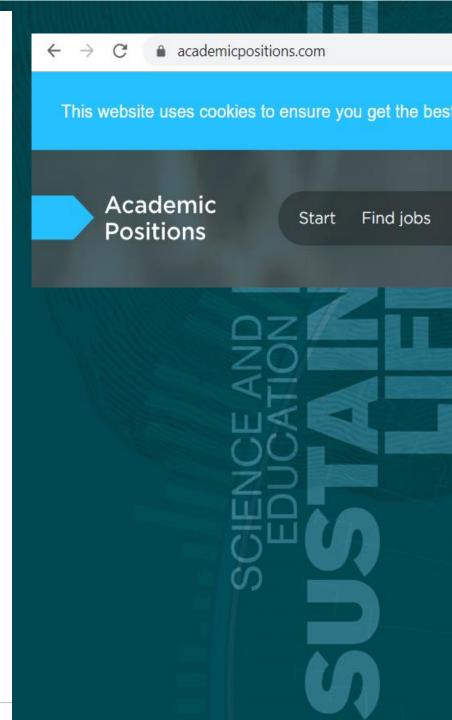
The objective of this project is to develop methods for multi-objective analysis of harvesting and transportation systems, adapted to the forestry of the future.

The Swedish University of Agricultural Sciences (SLU) develops the understanding and sustainable use and management of biological natural resources. The university ranks well internationally within its subject areas. SLU is a research-intensive university that also offers unique degree programmes in for example rural development and natural resource management, environmental economics, animal science and landscape architecture.

SLU has just over 3,000 employees, 5,000 students and a turnover of SEK 3 billion. The university has invested heavily in a modern, attractive environment on its campuses in Alnarp, Umeå and Uppsala.

www.slu.se

Further information:





Duties:

The objective of this project is to develop methods for multi-objective analysis of harvesting and transportation systems, adapted to the forestry of the future. The project will draw on existing methods for holistic evaluations, like e.g. Life Cycle Assessment (LCA) och Multi Criteria Decision Analysis (MCDA), to develop methods that are suitable and useful for application in forestry on an operational level. Typical applications can be how to choose machine system for a given forest activity, and how different operational restrictions and considerations in a given stand should be prioritized to maximize the goal achievement.

You are expected to actively manage the post-doc project, and with your own initiatives contribute to the group's research in this field. Your work is expected to lead to publications in high quality scientific journals. You are also expected to actively contribute to the group's work related to applying for external research funding. You may also be expected to supervise students' theses at all levels, within the project's research.

Qualifications:

The successful applicant holds a PhD, and has competence within the field of applying and preferably also developing mehtods of multi-critera evaluations of ecosystem services. A university degree and work experience within forestry, and especially logging and transports, are meriting. We are looking for a person who is highly motivated and who can work both independently and in teams, is used to taking own initiatives and who has documented experience in independent scientific work and in publishing in high quality scientific journals. Very good skills in English (both written and oral) are required. Personal merits will play a significant role in the recruitment process. As postdoctoral appointments are aimed for junior researchers, we are primarily looking for candidates with a doctoral degree that is three years old at most.

Place of work: Umea

Form of employment: Temporary employment as postdoctor for 2 years

Extent: 100 %

www.slu.se

Further information:

Ola Lindroos Professor ola.lindroos@slu.se

Eva-Maria Nordström Assoc. professor eva-maria.nordstrom@slu.se

Academic union representatives:

Saco-S föreningen SLU, SACO +46 (0)18 671085

Inga-Lis Johansson , SEKO +46 (0)90 786 82 10

Hans Åkesson, ST +46 (0)90 786 83 42



Deadline 19.03.2017.

Starting date: By agreement

Application: We welcome your application marked with Ref no. SLU ua 2017.2.5.1-469.

Please submit your application to the Registrar of SLU, P.O. Box 7070, SE-750 07 Uppsala, Sweden or registrator@slu.se no later than March 19, 2017.

Specific documents attached:

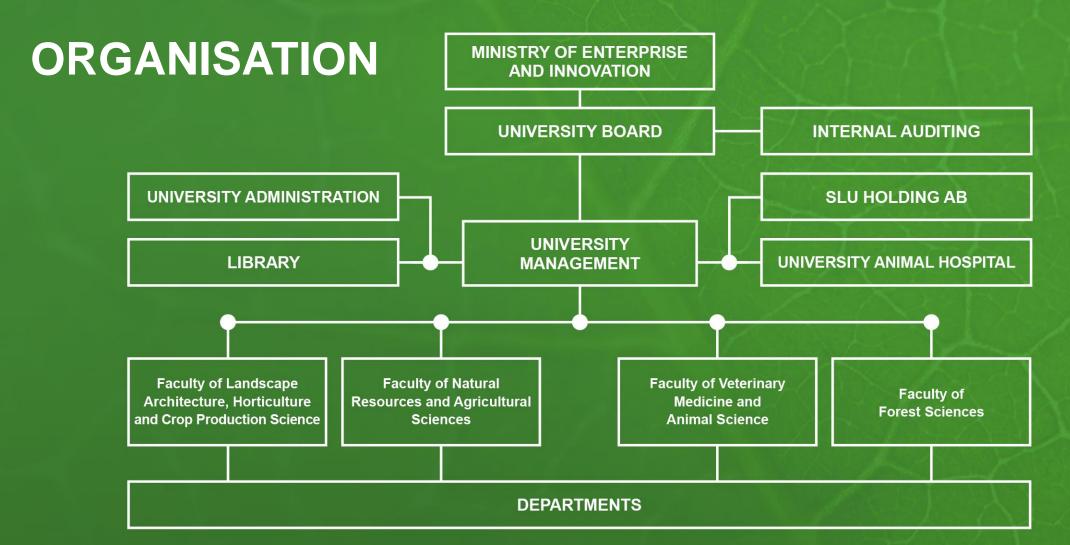
CV with publications list, 2) a certified copy of PhD-exam, 3) a short (1-2 pages) description of earlier research and scientific interests, and 4) names and contact information for two reference persons.

SLU is an equal opportunity employer.













SLU IN FIGURES

degree programmes

200 PROFESSORS

full-time students

550 doctoral students

3,000 full-time employees

3,500 million in turnover (SEK)



WE ARE A WORLD-CLASS INTERNATIONAL UNIVERSITY

 Research-intensive - 70% of the turnover goes to research and doctoral programmes

High scientific quality in our fields

• 3rd best university in the world in agriculture and forestry



WE TAKE ON FUNDAMENTAL ISSUES THAT AFFECT US ALL



Sustainable cities and rural areas





Biodiversity



Biomaterials and bioenergy





WE MAKE THE WORLD A BETTER PLACE

- Some important areas: climate change, sustainable cities, global health, biodiversity etc.
- Contributing to the development of low-income countries
- Data and analyses on which to base environmental decisions
- Climate-neutral by 2027!





EDUCATION

Sustainability experts of the future

- Some 40 degree programmes
- Many popular international programmes
- Double the number of students by 2027!





Faculty of Forest Sciences-basic facts

12 departments/units

50 professors (December 2018)

532 employees (December 2018)

64 doctoral students (December 2018)

4 masters programmes

About 60 students start to study forestry every year

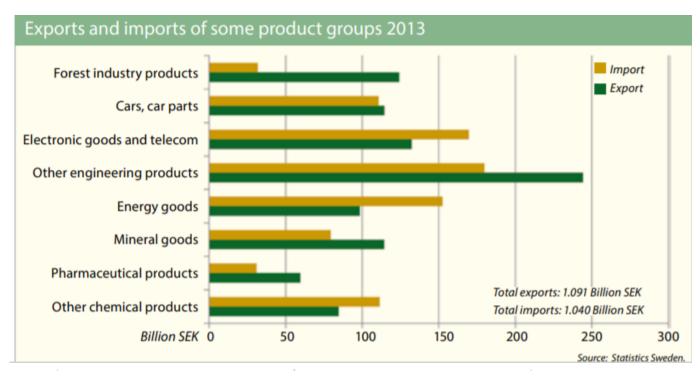
Annual turnover: 70 millions Euros, of which 36 millions Euros external grants (2018)

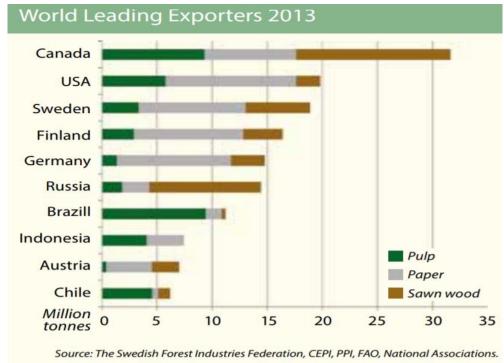


The Forest products industry in Sweden

The forest products industry is about 12 percent of Swedish industry's total employment, exports, sales and added value

Export of forest industry products is about 130 billion SEK (13 billion Euros)







Rezultati - Nauka

Blagojevic B., Jonsson R., Björheden R., Nordström E.M., Lindroos O. (2019): Multi-Criteria Decision Analysis (MCDA) in Forest Operations – An Introductional Review. *Croatian Journal of Forest Engineering* 40: 191-205.

Blagojevic B., Athanassiadis D., Spinelli R., Raitila J., Vos J. (2019): Determining the relative importance of factors affecting the success of innovations in forest technology using AHP. *Journal of Multi-Criteria Decision Analysis* 2019:1–12.

Schweier J., Blagojević B., Venanzi R., Latterini F., Picchio R. (2019): Sustainability Assessment of alternative strip clear cutting operations for wood chip production in renaturalization management of pine stands. *Energies* 12: 3306.

Blagojevic B., Nordström E.M., Lindroos O. (2019): Accounting for expertise in group decision-making using a novel measure of consistency. Submitted for *Information Sciences*.

Blagojevic B., Lindroos O. Nordström E.M., Kühmaier M., Diaz-Balteiro L. (2019): Multi-Criteria Decision Analysis in Harvesting and Extraction. *In preparation*.



Rezultati - Predmet na doktorskim studijama na SLU (gostujući profesor)

Introduction to Multi-Criteria Decision Analysis, 4.5 credits

SENAST ÄNDRAD: 01 MARS 2019

This course is designed for participants interested in transdisciplinary approaches that will improve the understanding of real-world decision problems and contribute to finding sustainable solutions. The course is based on experiences and examples from forest management but is aimed at PhD students within all fields. The course is part of the BECFOR research school.



Multi-Criteria Decision Analysis

Multi-Criteria Decision Analysis (MCDA) is an umbrella term for a set of methods to structure, formalize, and analyze complex decision problems involving multiple criteria, many different alternatives or options, and different decision makers which may have conflicting preferences. The methodology of MCDA can be classified into four basic phases: (1) structuring the decision problem, (2) assessing possible impacts of each alternative, (3) determining the preferences of decision-makers, and (4) evaluating and comparing the alternatives. In this way, MCDA can make decision problems more transparent and guides decision makers into making

Content and structure

The course consists of a combination of lectures, case-based learning, teacher-led class-room exercises, self-study literature, work on individual assignment and students' presentations.

The course is given on part time study pace (60%) during five weeks with a varying pace during the course. Time wise, the general structure of the course consists of the following parts:

- 1. May 6-10, 2019: 5 days of self-study and formulating decision-making problem with 60% study pace (i.e. 3 full days),
- 2. May 13-17, 2019: 5 days of lecturing with 80% study pace (i.e. 4 full days)
 May 20-June 10, 2019: 14 days of assignment work with 50% study pace (i.e. 7 full days).
- 3. June 11, 2019: 1 day of assignment presentation with 100 % study pace.





Rikard Jonsson

LAST CHANGED: 18 SEPTEMBER 2018

Multiple Criteria Decision Analysis in forest operations research and development

Swedish forestry is strongly export oriented, and operates under fierce global

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Facts:

Name: Rikard Jonsson

Born: 1989

Degree: Msc in Foresty (2013) Swedish University of Agricultural Science

Host company: Skogforsk

Supervisor: Ola Lindroos (SLU)

Co-supervisor: Bosko Blagojevic (SLU), Rolf Björheden (Skogforsk), Eva-Maria

Nordström (SLU)

Project started: 2018-01

Scheduled dissertation: 2022-01

Other: Rikard have worked with evaluations of technology and methods at Skogforsk since his graduate in 2013. Rikard is registered for a Licentiate, but the ambition is to continue will a full PhD, which the text also describes.





Rezultati – pedagoški kursevi

Za docenta-10 nedelja ukupno UPPSALA

Doctoral supervision

UPPSALA

Educating for critical thinking and criticality

UPPSALA

Education for sustainable development; course leaders

ALNARP UMEÅ UPPSALA

Grading and Assessment

UPPSALA

How to present research

UPPSALA

Project course, advanced course

UPPSALA

Teaching in Higher Education, basic course

ALNARP

Teaching in higher education, step two

3 weeks of full-time work

2 weeks of full-time work

2 day full time work

3 days of full-time work

2 weeks full time work

4 weeks work

3 weeks of full-time work

2 weeks of full-time work

























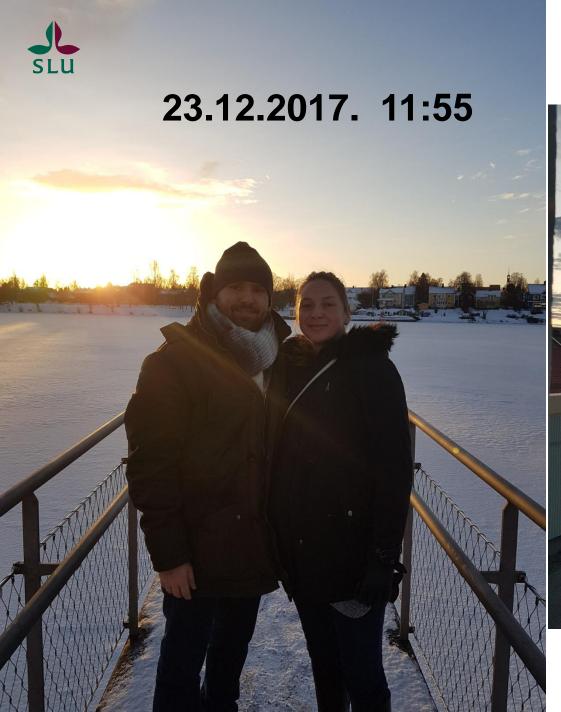


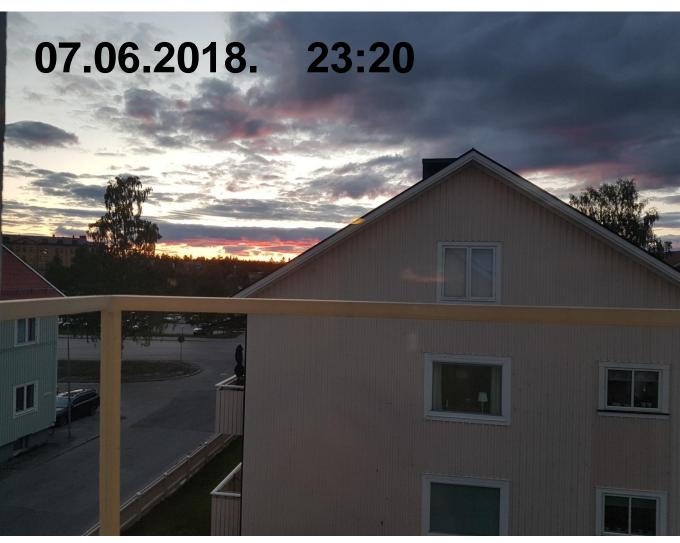










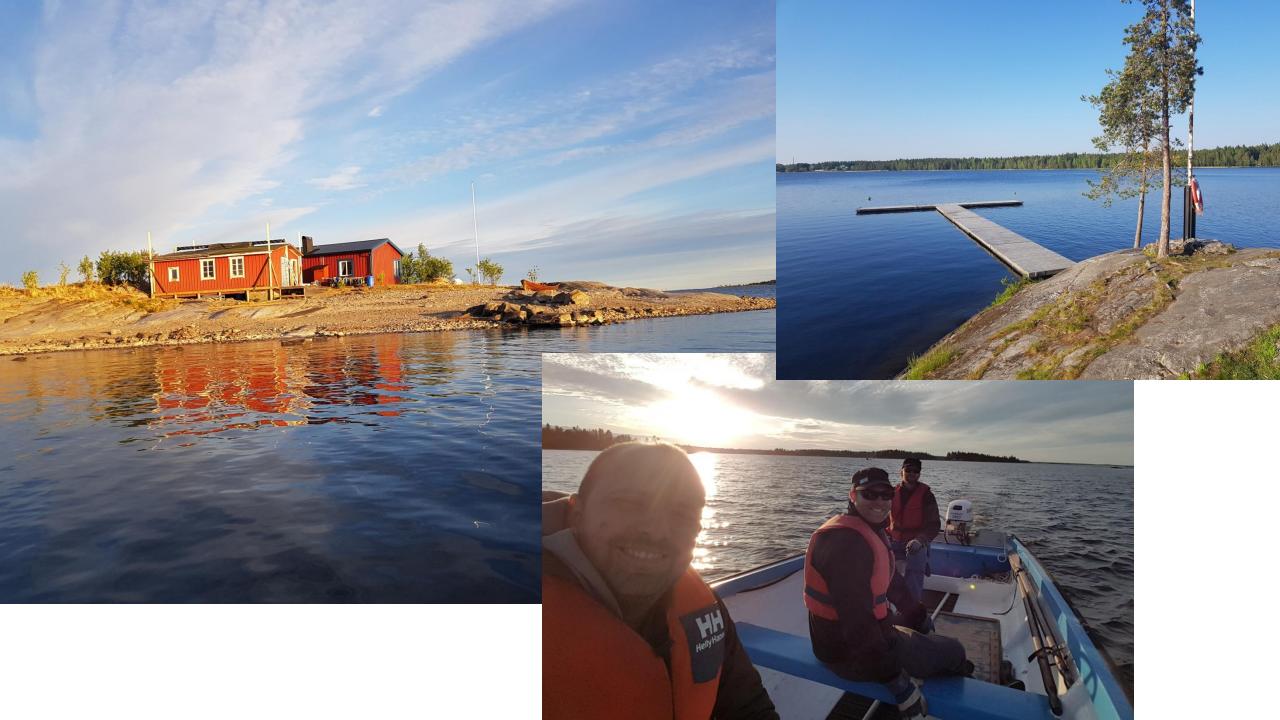








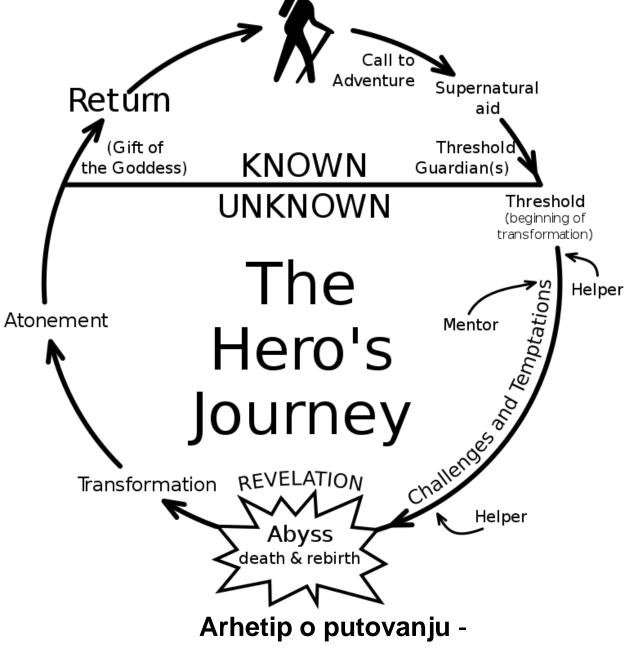












Simbolički izraz procesa psihičke transformacije



Hvala na pažnji!

