

2.2.2018

Uppsala University
The Faculty of Science and Technology

For the attention of Ms. Julia Ternhag

Review of the scientific qualifications of the applicants for the Professorship in Construction Engineering

Dear Sirs,

I would like to thank you for the confidence you have placed in me by inviting me to give a scientific evaluation of the candidates for the professorship of construction engineering at Uppsala University.

From the database that Ms. Julia Ternhag advised me of by email on 29th November 2017, I have downloaded guidelines, job description, and the applications of fourteen candidates. The job description also includes the required qualifications to be considered in the evaluation. Each application comprises answers to twelve (12) questions. I was especially requested to rank the candidates in order of their merits and suitability for the post by first dividing the candidates into three subgroups: top, intermediate, and not qualified. The candidates proposed for the top group actually form my shortlist and their ranking is part of this review. It might be useful to mention that Uppsala University has not delivered bibliometric data of the publications for the evaluation.

The qualifications listed in the job description indicate that the applicant shall have demonstrated excellence in one of the building construction areas, with expertise in research and teaching. It is especially emphasized that the candidate's research expertise shall meet high international standards. Formal teaching training of a minimum of ten weeks is required, as well as the ability to teach in English, and after two years from the appointment, in Swedish. Under special circumstances, teaching training may also be completed during the first two years from appointment. The questionnaire that the applicants had to fill in when leaving the application also indicates that a doctoral degree is required or assumed. It is also clear that without a doctoral degree a candidate cannot meet high international standards, as a doctoral degree is the starting point for a scientist also in the field of construction engineering. As the requirements for research expertise are the most explicitly defined in the job advertisement, it is an appropriate criterion for screening the candidates.

The fourteen candidates are in alphabetical order:

Dr. Asaad Almssad
Dr. Gabriele Bernardini
Ms. Yrsa Cronhjort
Dr. Osama Hassan
Dr. Per Isaksson
Ms. Anitha Joy
Dr. Mikel Landa
Dr. Zhang Lin
Dr. Sven Olof Mundt-Petersen
Dr. Andrej Savin

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Dr. Staffan Svensson
Dr. Fernando Torgal
Dr. Johan Vessby
Dr. Joakim Widén

I have no close relations to the applicants. I know one of the applicants, Ms. Yrsa Cronhjort, in person, as she was employed by the Department of Architecture at the Aalto University, where she is also finalizing her doctoral studies. She has been a member of a research group with which my group cooperated for some years around 2010. I have mainly participated in meetings with Ms. Cronhjort without having engaged in any direct cooperation in teaching or research. I have also met Dr. Staffan Svensson during his visit at our university some years ago.

As the term “construction engineering”, or in Swedish “byggteknik”, may be interpreted in various ways. I would like to emphasize that I have evaluated the applications assuming that the term engineering means that the professorship is involved in natural sciences and mathematics, rather than architecture or economics, while construction means that the main application area of research is construction and maintenance of built environments.

Having reviewed the applications, I made the following personal conclusions of the qualifications of the candidates and their suitability and ranking for this professorship.

Evaluation of Dr. Asaad Almssad

Dr. Almssad is 51 years old and has his home address in Sweden. He received his Ph.D. degree from Bucharest University of Technology in 1995. Currently, he acts as an associate professor (docent) at Karlstad University.

Scientific competence

His publication list includes only four peer-reviewed documents, of which I found only one in the Web of Science database and it was without any citations. The publication record is clearly not strong enough for this permanent professorship.

Teaching

The applicant has pedagogical training and he is an experienced teacher at the university level. He has obviously not supervised doctoral theses.

Conclusion:

Dr. Almssad has strong experience in teaching and he would obviously be a good candidate for the position of university lecturer. For the professorship under consideration, there is no evidence of the excellence required in research. The subcategory of the application is “**not qualified**”.

Evaluation of Dr. Gabriele Bernardini

Dr. Bernardini has his address in Italy. He received his Ph.D. degree from Universita Politecnica delle Marche in 2016. Currently, he is holding several posts at the Universita Politecnica delle Marche, with the titles teaching professor or post-doctoral research fellow.

Scientific competence

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As Dr. Bernardini received his doctoral degree only in 2016, his post-doctoral period is quite short to demonstrate research expertise as an independent researcher. He has some publications listed in the Web of Science database. The small number of citations is understandable as he is at the beginning of his academic career.

Teaching

His teaching experience at university level is in balance with the length of his academic career, and experience of thesis supervision or curriculum planning is naturally modest for a permanent professorship.

Conclusion:

Dr. Bernardini is a young scientist whose merits do not yet indicate excellence in research or teaching. He could be a potential candidate for the fixed-term position of assistant professor, but in this call, his application is ranked in the category **“not qualified”**.

Evaluation of Ms. Yrsa Cronhjort

As the applicant does not hold a doctoral degree, her research expertise cannot be found to meet high international standards in construction engineering. The subcategory of the application is **“not qualified”**.

Evaluation of Dr. Osama Hassan

Dr. Hassan is a 48-year-old Swedish citizen who received his Ph.D. degree from KTH Sweden in 2003. Currently, he holds the position of professor at Linköping University, and done so since 2014. After his doctoral examination, he has also worked for two-year periods both as a consultant and as a post-doctoral researcher. After passing his Bachelor’s examination in 1990, he worked in the construction industry during the years 1990-1996. He has also four Master’s examinations in total from different Scandinavian universities. One of his Master’s examinations is in the field of education.

Scientific competence

The candidate has listed 28 peer-reviewed document in scientific journals, and 14 conference papers. However, the scientific status of the articles is not indicated in the application. As author identifiers were not provided in the application, it was not possible to define the number of citations reliably just based on the applicant’s name. He obviously has some citations (perhaps 20) in the Web of Science database, but the number may not be high. However, the topics of the articles are relevant for the position and the applicant is the first author of several papers.

The research plan deals with the sustainability of the built environment, which is a relevant topic for the society and this professorship. In the application, the research plan is described as projects, one of which concentrates on the sustainability of the built environment and one on multi-story building of wood. The first project description is written in English and the second one in Swedish. A shortcoming of the plan is that it does not emphasize the contribution of construction engineering to multidisciplinary research of sustainable built environments. A project-based approach may not be the best way to establish a professor’s research group with long-term targets.

Teaching



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Dr. Hassan has formal education in pedagogy and wide experience in teaching and supervising theses on bachelor and master level. He has some experience in supervising doctoral students, but does not seem to have supervised any doctoral student from start to graduation, which is perhaps the only shortcoming of his teaching portfolio considering this professorship.

Conclusion

Dr. Hassan's education is a complete match with construction engineering and he has practical experience from the construction industry. His teaching experience and training is appropriate for the position, save for the limited experience in supervising doctoral students. However, his excellence in research is doubtful, as the citations in the Web of Science are obviously quite few in number, and, in addition, the structure of the research plan was also not optimal for describing the long-term targets of the chair of construction engineering. The applicant's subcategory is **"intermediate"**.

Evaluation of Dr. Per Isaksson

Dr. Isaksson is a 49-year-old Swedish citizen who received his Ph.D. degree from Luleå University of Technology in 2001. From 2013 he has been professor of solid mechanics at Uppsala University. After his doctoral examination, he worked about one year as a consultant and has after that been employed at different universities as researcher or professor. He may have no practical experience from the construction industry.

Scientific competence

The candidate's research merits meet high international standards. The candidate lists 62 peer-reviewed papers, in many of which he is the first author. He has obviously a reasonable number of citations in the Web of Science database, one paper with over 500 citations (paper 18 in his list). He has recently received an ERC grant, is an active reviewer of scientific journals, and his cumulative value of external researcher funding is about 4 M€. The focus of his research is on structural or solid mechanics, which is certainly connected to construction engineering, but does not cover all the aspects of the field.

Teaching

Dr. Isaksson is an experienced professor who has also trained several doctors. He has received formal pedagogical training and has been involved in curriculum planning. The courses he has developed deal with solid mechanics and related experimental and numerical methods. Design of buildings and their construction has not been included in his teaching.

Conclusion

In his application, Dr. Isaksson does not discuss the research he is planning to carry out if appointed for this vacant position, which may indicate that he intends to continue his present research, clearly emphasizing the importance of structural mechanics for the students of structural engineering. Even if structural mechanics and construction engineering are not a complete match, Dr. Isaksson fulfils all the formal requirements and is ranked in subcategory **"top"**.

Evaluation of Ms. Anitha Joy

As the applicant does not hold a doctoral degree, her research expertise cannot be found to meet high international standards in construction engineering. The subcategory of the applicant is **"not qualified"**.

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Evaluation of Dr. Mikael Landa

Dr. Landa has his address in Spain. He has received his doctoral degree in 1997 from the school of architecture. His application describes his merits as an architect, rather than as a scientist and teacher specializing in construction engineering. I have interpreted that the applicant falls outside the scope of construction engineering, and have, consequently, ranked him in subcategory “not qualified”.

Evaluation of Dr. Zhang Lin

Dr Lin has his address in Hong Kong. He received his Ph.D. degree from Massey University in New Zealand in 1994 and his Bachelor’s of Engineering from Tsinghua University in China in 1983. Since his doctoral examination, he has been employed by the City University of Hong Kong and currently holds a position of associate professor. During 1983-1990 and 1995, he worked in industry as a building services engineer and assistant engineer, respectively.

Scientific competence

Dr. Lin has an outstanding publication record with a large number of citations. According to his CV he has an H-index of 29 in Scopus, and based on the journals listed, the index is on the same level in the Web of Science. The number of his journal articles is more than 110. He has also been active in the scientific community in different roles. It is clear that he is an excellent and well-known scientist in his research field, i.e. ventilation or indoor air environment including fire safety, which is related to construction engineering, particularly, if buildings are the area of application.

Teaching

The candidate’s pedagogical merits cover all the levels and realms of university teaching. However, he may not have received formal pedagogical training. The number of graduated doctors is 6, which is a reasonable but not high number compared to the scientific merits.

Conclusion

Dr. Lin is a qualified scientist and teacher. His field is not a complete match with that of construction engineering. Because of his outstanding merits as a researcher, he belongs in subcategory “top”.

Evaluation of Dr. Sven Olof Mund-Peterssen

Dr. Mund-Peterssen is a 39-year-old Swedish citizen who received his Ph.D. degree from Lund University in 2015. Currently, he is working in the private sector as both a consultant and an entrepreneur. He has also experience as a site manager in a large construction company.

Scientific competence

The applicant received his doctoral degree in 2015 and has two publications in the Web of Science. His research merits may improve during the years to come, but are presently clearly too limited for the professorship.

Teaching competence

Generally, the applicant has outstanding merits in teaching. However, his experience in supervising doctoral theses and research related to them is not described in the application. The application indicates convincing competences in the area of pedagogy and formal teaching skills.



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Conclusion

As Dr. Mund-Peterssen's research merits are clearly below high international standards, the subcategory of his application is **"not qualified"**.

Evaluation of Dr. Andrej Savin

Dr. Savin is a 44-year-old Swedish citizen who received his Ph.D. degree from Uppsala University in 2012. Currently, he is working as an assistant professor at the Department of Engineering Sciences at Uppsala University. He has no practical experience from civil engineering or the construction industry.

Scientific competence

He has 11 peer-reviewed journal articles and at least some citations in the Web of Science, but his research focuses on marine and offshore engineering including wave energy. His research falls out of scope of the vacancy in construction engineering. The applicant's subcategory is **"not qualified"**.

Evaluation of Dr. Staffan Svensson

Dr. Svensson is a 50-year-old Swedish citizen who received his Ph.D. degree from Lund University in 1998. Since then he has held various positions as a researcher or professor at different universities in Sweden, Denmark and Canada, currently acting as professor of civil engineering at Borås University. He has not reported any working experience from the construction industry.

Scientific competence

He has 31 peer-reviewed journal articles. The number of citations found in the Web of Science may not indicate a high international standard of research. The use and properties of wood or timber as a construction material has been the focus of his research. His research plan also concentrates on advancing the use of wood as a construction material, which is a reasonable target in the Nordic countries. The topics introduced in the plan are justified for this professorship, if research specializing in wood construction is a suitable strategy for the university.

Teaching

Generally, the applicant's experience covers all the fields of teaching at university level, but he may have no formal pedagogical training.

Conclusion

Although Dr. Svensson's research topics are relevant for this professorship and his teaching experience is convincing, his research merits may not be strong enough. The subcategory of his application is **"intermediate"**.

Evaluation of Dr. Fernando Torgal

Dr. Torgal is a 51-year-old Portuguese who received his Ph.D. degree from the University of Beira Interior in 2007. After his Master's examination at University of Coimbra in 1992, he worked as a civil engineer and was also Partner of a construction company. Currently, he is a researcher at the University of Minho, with the title of Principal Investigator.

Scientific competence



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The applicant has listed 75 publications in peer-reviewed scientific journals, which is a large number considering that the articles are mainly published within the last 10 years. In most of the articles, he is even the first author. He has clearly more than 1000 citations and his H-index may be over 20 in the Web of Science. His research relates to cementitious materials, geopolymers, and their binders, but also includes structural testing and studies of built environments. It might be useful to mention that he uses the name F. Pacheco-Torgal in the publications. In his research plan, the vision is to enhance sustainability by recycling materials and by minimizing the amount of waste. In the application, the vision is thoroughly justified and can lead to scientific breakthroughs.

Teaching

Generally, the applicant's experience covers all the fields of university teaching. However, the applicant may not have formal pedagogical training, and student-teacher interaction could have been discussed in more detail in the application.

Conclusion

As Dr. Torgal has excellent research merits, his research area and vision are suitable for the field of construction engineering, and he has practical experience from the construction business, he is ranked in subcategory "top".

Evaluation of Dr. Johan Vessby

Dr. Vessby is a 41-year-old Swedish citizen who received his Ph.D. degree from Linnaeus University in 2011. Since then he has held different positions at Linnaeus University, being currently also the Head of the Department of Building Technology. During 2003-2011 he worked as a structural engineer with a part-time contract in a consultant company.

Scientific competence

The applicant has only some publications and citations in the Web of Science database. His research area, timber or wood structures, is relevant for the professor of Construction Engineering. The target of the research plan is to enhance the use of wood in load-bearing structures. The plan may describe an incremental path to develop existing practices rather than new openings.

Teaching

Generally, the applicant has experience in teaching, supervising thesis and managing degree programmes. He has some pedagogical training. However, the applicant does not describe gathering of student feedback and its impact on the course and curriculum planning.

Conclusion

Even if Dr Vessby's research topics are relevant for this professorship and he has relevant teaching experience, his research merits are not strong enough. The subcategory of his application is "intermediate".

Evaluation of Dr. Joakim Widén

Dr. Widén is a 37-year-old Swedish citizen who received his Ph.D. degree from Uppsala University in 2011. Since then he has held different positions at Uppsala University, being currently Senior Lecture in Engineering Physics with specialization in built environment energy systems. He worked in 2011 as a researcher with a part-time contract in industry, but may not have any work experience in the construction area.

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Scientific competence

The applicant has almost 40 publications in the Web of Science database with a reasonable number of citations. He is obviously a very able scientist, but his research field does not match the research usually expected of a professor of construction engineering. His research seems to concentrate on energy systems, without making a contribution to advances in the construction and building industry.

Conclusion

The applicant's research field falls outside the scope of construction engineering. He represents a field with which the professor of construction engineering could undertake multidisciplinary research. The subcategory of this application is **"not qualified"**.

Comparison and ranking of the candidates

I consider that 8 of the 14 candidates are not qualified for this position. The reasons are that they have not a doctoral degree, their research areas do not fall within the scope of the professorship, or their research merits are not convincing enough for this position.

Three candidates in the subcategory intermediate have reasonable merits in teaching, but their research merits may not meet high international standards. All of these candidates are from Sweden, and their research may well be on a high level within the Nordic countries in their specific fields.

The top group of candidates consists of three individuals, who are professor Per Isaksson of Sweden, professor Zhang Lin of Hong Kong, and Dr. Fernando Torgal of Portugal. They engage in different fields of research, and consequently, the contents of their research and their publication records may not be directly comparable as regards number of publications and citations. However, they all meet a high international standard of research. Thus, the order of the applicants should reflect the strategy of Uppsala University, which is beyond my knowledge.

Dr. Torgal has an interesting and multidisciplinary research vision based on the recycling of construction materials and he also has ten years of practical experience from the construction business. Dr. Lin's field is building services technology, which lies between civil and mechanical engineering. Even if its importance for the building industry is growing, it may not be the best solution if Dr. Lin would be the only professor in the field of construction engineering at Uppsala University. The challenge is similar as regards Dr. Isaksson, whose research is related to the applications within mechanical engineering at Uppsala. It is clear that structural mechanics is the foundation of structural design, and his research group could be an excellent partner of the professor in construction engineering, but it is not so self-evident that his background is optimal for someone being the only professor in construction engineering. In conclusion, I place these three applicants in the following priority order: Dr. Torgal, Dr. Lin and Dr. Isaksson.

Sincerely yours,



Jari Puttonen

Aalto University

Professor of Structural Engineering and Building Physics

Candidate: Asaad Almssad

Scientific merits

Judgement:

insufficient

Publications include four peer reviewed journal articles of which I found one in Web of Science, but it was without citations. The application does not include Author identifiers.

The publication record is not convincing enough to the position.

Plan for the scientific work

Judgement:

insufficient

The research made covers different topics. The plan include the fields with different scientific background. More focused plans could offer better possibilities for a scientific breakthrough.

Pedagogical merits

Judgement:

very good

Applicant has pedagogical training and he is an experienced teacher at the university level. The major lack is that he has obviously not supervised doctoral students.

Pedagogical approach/reflection

Judgement:

very good

Mr. Asaad has collected student feedback and has obviously considered the feedback in the course development. His has seriously thought his teaching philosophy describing plausibly the interaction between teaching and learning.

Candidate: Gabriele Bernardini

Scientific merits

Judgement:

insufficient

Mr. Bernardini has received his doctoral degree in 2016. His post-doctoral period is quite short to demonstrate research expertise as an independent researcher. Some of the publications listed can be found in Web of Science. The small number of citations is understandable, as he is at the beginning of his scientific career.

Plan for the scientific work

Judgement:

good

The research plan for applying behavioral design methods for Building Engineering has a clear focus. The topic is multidisciplinary with connections to the fields that falls outside the scope of technical sciences.

Pedagogical merits

Judgement:

good

Teaching experience at the university level is in balance with the fact that the applicant received his doctoral degree in 2016. Experience in thesis supervision or curriculum planning is modest.

Pedagogical approach/reflection

Judgement:

good

The applicant has described his pedagogical approach understandably. As the chair of Construction Engineering may cover quite different fields, the teaching and evaluation methods described are topic-dependent. This was not discussed in the application.

Candidate: Yrsa Cronhjort

Scientific merits

Judgement:

insufficient

The applicant has not a doctoral degree. No publications were found in the Web of Science.

As a threshold criterion is not fulfilled the other items were left void.

Plan for the scientific work

Judgement:

Pedagogical merits

Judgement:

Pedagogical approach/reflection

Judgement:

Candidate: _____ Osama Hassan _____

Scientific merits

Judgement:

__good/insufficient__

Mr. Hassan has obviously some citations (perhaps 20) in the Web of Science. The author identifiers were not available in the application. The research topics or titles of articles are relevant for the positions.

Plan for the scientific work

Judgement:

___good___

The research plan deals with the sustainability of the build environment. The topic is relevant for the modern society. The restriction of the plan is that it does not clearly discuss the contribution of the professorship to the multidisciplinary research introduced. The plan was described as a project in the application, which is perhaps not the best way to establish professor's research group with long-term targets.

Pedagogical merits

Judgement:

__outstanding__

The applicant has a formal education in pedagogy and large experience in teaching and supervision of theses on Bachelor's and Msater's levels and also some experience in supervising doctoral theses.

Pedagogical approach/reflection

Judgement:

__outstanding__

The description convinces and covers different aspects relevant for university teaching.

Candidate: _____ Per Isaksson _____

Scientific merits

Judgement:

__outstanding__

Scientific merits are excellent: good publication record with a reasonable amount of citations in the Web of Science including an article with over 500 citations. He has received an ERC grant recently. He is active reviewer of scientific journals and he has received a reasonable amount of external grants (cumulative value about 4 M€). However, the research is concentrated on structural or solid mechanics, which is not on the focus the open position.

Plan for the scientific work

Judgement:

___good___

Professor Isaksson does not discuss the research that he plans to do in the open positions, but describes more the research that is going on or under preparation in his present position as a professor solid mechanics at Uppsala. As regards the professorship of construction engineering, the description is not restricted. In the application, it would have been useful to explain how the research in the new position differs from the research at his present position, as the fields are different

Pedagogical merits

Judgement:

__outstanding__

The applicant is experienced professor with a good number of graduated doctoral students. He has also passed some pedagogical courses and made curriculum planning.

Pedagogical approach/reflection

Judgement:

__outstanding__

His pedagogical approach, teaching philosophy and reaction to student feedback sound reasonable and are based on experience.

In the application professor Eriksson discuss the content of teaching in the open position. The description emphasizes strongly the importance of structural mechanics. However, the field of the open position is not structural engineering but construction engineering, which typically covers also other aspects than structural mechanics.

Candidate: _____Anitha Joy_____

Scientific merits

Judgement:

_____insufficient_____

No doctoral degree. The intention of the applicant is obviously to apply for a position of a Ph.D. student not a professorship.

As a threshold criterion is not fulfilled, the other items are left void.

Plan for the scientific work

Judgement:

Pedagogical merits

Judgement:

Pedagogical approach/reflection

Judgement:

Candidate: _____Mikel Landa_____

Scientific merits

Judgement:

_____insufficient_____

The field of the applicant is architecture. His research or artistic activity falls outside the scope of construction engineering.

As the field falls outside of the scope, the other items are left void.

Plan for the scientific work

Judgement:

Pedagogical merits

Judgement:

Pedagogical approach/reflection

Judgement:

Candidate: _____ Zhang (John) Lin _____

Scientific merits

Judgement:

__outstanding__

Professor Lin has an outstanding publication record with a large number of citations. According to his CV he has an H-index of 29 in Scopus, and based on journals listed, the index is on the same level in the Web of Science. He is an excellent scientist in his research field, which is ventilation or indoor air environment. The role of building services technology is increasing in construction industry as it directly affects energy efficiency and healthy of buildings. However, the technical systems in buildings are renewable, and the sustainability and aging of building frames and built environments are mainly affected by other factors.

Plan for the scientific work

Judgement:

__outstanding/good__

The plan for the research is excellent for Professor Lin's research field. However, it would have been useful to discuss the methods to integrate the field specific research to serve all the fields within the construction engineering.

Pedagogical merits

Judgement:

__outstanding__

Pedagogical merits cover all the levels and parts of the university teaching. However, he may not have a formal pedagogical training. The number of graduated doctor is 6, which is reasonable but not high number compared to the scientific merits.

Pedagogical approach/reflection

Judgement:

__outstanding__

Professor Lin is interested in student feedback and considers it in his teaching, and he is interested in formal pedagogical training.

Candidate: _____Sven Olof Mund-Peterssen_____

Scientific merits

Judgement:

__insufficient__

The applicant received his doctoral degree in 2015 and has two publications in the Web of Science. Presently he is acting as a consultant in the area of building physics. He is a founder and manager of a company selling education. His research merits may developed during the years but are still too limited for the professorship.

Plan for the scientific work

Judgement:

__insufficient__

The plan discuss the position of scientific research in construction industry comparing it to medical sciences instead of other technical sciences. The research plan concentrates on observed problems in practice, solving of which may not need new scientific results or knowledge but requires that the existing knowledge will be applied reasonably.

Pedagogical merits

Judgement:

__very good__

Generally, the applicant has outstanding merits in teaching. However, the experience of supervising doctoral theses are not described in the application.

Pedagogical approach/reflection

Judgement:

__outstanding__

The applicant has a convincing competence in this area.

Candidate: Andrej Savin

Scientific merits

Judgement:

insufficient

The applicant's research field does not fall within the scope of construction engineering very well. He is already a professor in the department of engineering sciences at Uppsala specializing in mechanical engineering, offshore structures and wave energy.

Plan for the scientific work

Judgement:

insufficient

The plan focuses on marine applications. The plan does not reflect the present challenges of construction industry

Pedagogical merits

Judgement:

very good

The applicant is experienced teacher who has participated in course planning and development. He has a formal pedagogic training. However, the experience in supervising doctoral theses is limited, one guest student.

Pedagogical approach/reflection

Judgement:

good

Pedagogical approach and consideration of student feedback could have been clarified more in the application

Candidate: _____Staffan Svensson_____

Scientific merits

Judgement:

__very good__

The applicant received his doctoral degree in 1998. He may have tens of citations in the Web of Science database. He has participated in conferences, he reviews regularly scientific articles and has served scientific community and universities in different roles of trust.

Plan for the scientific work

Judgement:

__very good__

The plan concentrates on advancing the use of wood as a construction material, which is a reasonable target in the Nordic countries. The topics introduced are justified for this professorship, if the research specialized in wood construction is a suitable strategy for the university.

Pedagogical merits

Judgement:

__outstanding__

Generally, the applicant's experience covers all the fields of teaching at universities.

Pedagogical approach/reflection

Judgement:

__very good__

The applicant has convincing competence in this area, but he may have no formal pedagogical training.

Candidate: _____ Fernando Torgal _____

Scientific merits

Judgement:

__outstanding__

The applicant has listed 75 publications in peer-reviewed scientific journals, which is a large number considering that the articles are mainly published within the last 10 years. In most of the articles, he is even the first author. He has clearly more than 1000 citations and his H-index may be over 20 in the Web of Science. His research relates to cementitious materias, geopolymers, and their binders, but also includes structural testing and studies of built environments..

Plan for the scientific work

Judgement:

__outstanding__

The vision of the plan is enhance sustainability by recycling materials and minimize the amount of waste. In the application, the vison is thoroughly justified and it can lead to scientific breakthroughs.

Pedagogical merits

Judgement:

__very good__

Generally, the applicant's experience covers all the fields of teaching at universities. The applicant may have no formal pedagogical training.

Pedagogical approach/reflection

Judgement:

__good__

The interaction between student and teacher could have been discussed more in the application.

Candidate: _____Johan Vessby

Scientific merits

Judgement:

__insufficient__

The applicant received his doctoral degree in 2011 and obviously has six publications in the Web of Science and 12 citations. The research topic is timber or wood structures, which is relevant for the professorship.

Plan for the scientific work

Judgement:

__good__

The plan enhances the use of timber and wood in load-bearing structures and buildings. Within that framework, the focus of the research remains open and a vision may introduce more an incremental path for developing existing practices.

Pedagogical merits

Judgement:

__very good__

Generally, the applicant has experience in teaching, supervising thesis and management of degree programmes. The experience is not discussed, but it is merely introduced in the application.

Pedagogical approach/reflection

Judgement:

__good__

The applicant does not discuss student feedback and its impact on the course and curriculum planning.

Candidate: _____Joakim Widén_____

Scientific merits

Judgement:

__insufficient__

The applicant received his doctoral degree in 2010 and has tens of well-cited publications in the Web of Science.

He is obviously very able scientist, but his research field does not relate closely enough to construction engineering.

Plan for the scientific work

Judgement:

__insufficient__

The plan is to transfer his present research group (Build Environment Energy System) with him from its present division. It remains unclear how the plan would enhance the development of construction industry including e.g. works at the site or sustainability and durability of buildings and structures themselves.

Pedagogical merits

Judgement:

__outstanding__

Generally, the applicant has outstanding merits in teaching.

Pedagogical approach/reflection

Judgement:

__outstanding__

The applicant has convincing description of his competences.