

## **Guidelines for applications at the School of Engineering (JTH)**

These guidelines are to be a tool for experts and job applicants for appointment and/or promotion at the School of Engineering. The guidelines are designed to cover all forms of employment, which means that some parts may be less relevant to report since the qualifications are different for the different positions (see separate evaluation criteria for employment / promotion to a lecturer, unpaid associate professor and professor at the School of Engineering). The guidelines specify no priority but are examples of qualifications that applicants can include in the application documents and that experts can use as a basis for assessing the applicant's qualifications. Some overlap between the different criteria may occur, which is a way to analyse the candidate's overall qualifications from a variety of perspectives. One qualification may for example apply to both the assessment of the scientific skills and skills in management.

Qualifications from the following areas are reported:

- Scientific qualifications
- Pedagogical qualifications
- Collaboration with the surrounding society
- Administrative and human resource management
- Professional experience

It is recommended that the applicants present their qualifications by following the specified areas, while experts are asked to consider these areas in the evaluation process, according to current evaluation criteria for the position in question.

### **Scientific qualifications**

Presentation of the scientific qualifications, or when the position considers artistic achievements and skills, is aiming to allow the experts to assess the quality and productivity of the applicants. The applicant should indicate the scientific or artistic works invoked as the basis of appointment. The selection of works should also be reasonable and commented. In addition to the scientific requirements in the advertisement, the presentation of the scientific merits, for example, may contain information that can be attributed to the following areas:

#### **Formal competence**

- Doctoral degree
- Docent/ Associate professor/ Reader

#### **Scientific production**

- All scientific publications, articles and textbook chapters (teaching materials presented in the pedagogical qualifications), as well as other scientific works. Publications should be categorised according to Appendix 1.

### **Scientific collaborations and external research funding**

- National and international collaboration projects
- External research funding as main applicant, (Funding agency, amount, date, etc.)  
External research funding as co-applicant, (Funding agency, amount, date, etc.)
- Arrangement of scientific conferences and congresses
- Research activities at foreign universities for longer periods

### **Supervision of doctoral students/ Research education**

- Supervision of doctoral students
- Examiner or course responsible of doctoral courses
- Opponent at dissertations/public defence
- Member of doctoral examination committees

### **Research Development**

- Responsible for strategic research development and management
- Initiate and conduct research in coherent long-term programs

### **Academic assignments**

- Evaluation expert
- Reviewer, editor or editorial board member for scientific journals
- Membership in research boards and other funding agency forums, participation in scientific review assessment and evaluation committees
- Membership in scientific societies, academies, etc.
- Scientific expert at national and international investigations and committees

### **Other academic qualifications**

- Scientific prizes and awards
- Presentation and attendance at scientific conferences
- Other relevant qualifications for the current employment

### **Self-assessment of academic skills**

The applicant should give a description of own scientific qualifications in the application. The applicant's role in the research activities should be clear and the research findings highlighted in both a national and an international perspective. The description should include:

- Independence
- Productivity
- Quality
- Future research plans

## **Pedagogical qualifications**

The evaluation of pedagogical skills shall be given equal attention as the evaluation of academic skills. The pedagogical skills should be well documented and presented in way that enables the assessment of their quality. Form, level, scope and importance of education and the level of autonomy in connection with the development of educational materials/teaching resources should be stated. The presentation of the pedagogical experience may for example contain information in relation to the following areas:

### **Pedagogical education**

- Teaching and learning in higher education pedagogical courses or equivalent (specify the scope and level)
- Other relevant courses
- Participation in pedagogical/educational courses, seminars or conferences
- Participation in teacher exchange programs
- Education in research supervision

### **Teaching experience**

- Education at undergraduate and graduate (advanced) levels
  - Scope, level and variation
  - Experience of different teaching and examination methods
  - Selection and preparation of teaching and examination materials
- Education at postgraduate level
  - Doctoral courses
  - Lectures and seminars for postgraduate students
  - Teaching and supervision of postgraduate students
- Other relevant educational activities
  - Teaching in industry, government and/or other organisations.
- Assignment as guest speaker or keynote speaker
- Communicating and disseminating research and popular science to students and society
- Experience in teaching foreign students at Swedish universities
- International teaching experience

### **Educational planning**

- Planning and development of the teaching activities at undergraduate, graduate and postgraduate levels
- Course responsibility
- Assignments such as postgraduate student counsellor
- How course evaluations were employed and resulted in changes

### **Pedagogical and educational development activities**

- Development of new courses
- Renewal of teaching methodologies and course contents
- Funded educational/pedagogical projects
- Completed educational projects
- Study visits for educational purposes

### **Educational teaching materials and other publications**

- Textbooks
- Preparation of teaching materials and other educational materials
- Publication in educational journals
- Popular scientific production and activities

### **Other pedagogical and educational qualifications**

- Other relevant pedagogical work related to educational activities
- Pedagogical prizes and awards

### **Self-assessment of pedagogical skills**

The applicant should describe what has been done to fulfil the pedagogical role, how it was performed and what results have been achieved.

- Own comments regarding the carried out activities
- Own opinions on knowledge, learning, teaching and management, and how they were developed and implemented
- Assessment of own activities in relation to the objectives and prospects that existed in the working environment

### **Collaboration with the surrounding society**

#### **Scientific collaborations**

- Development and implementation of contract research and R&D work
- Co-author of scientific publications with non-academics
- Editorship, writing of popular science articles and book chapters
- Communication and dissemination of research to the surrounding community in the media, through popular scientific lectures, public education and conferences

#### **Pedagogical collaborations**

- Development and implementation of contract education
- Development of information and educational material intended for use outside the university
- Arrangements of popular scientific conferences and lecture series

#### **Other collaborations**

- Membership and managerial positions in networks, associations and organisations
- Board assignments of organisations or businesses
- Consulting

## **Administration and management of activities and personnel**

In order to conduct high quality research and teaching, it requires researchers and teachers with the ability to lead and manage the activities. A versatile competence is required for a productive interaction between research, teaching and administration. Other leadership / managerial positions than in academic activities can / should be relevant and presented by the applicant.

### **Education in**

- Leadership
- Organisation
- Economy
- Supervision
- Project management
- Human resources

### **Leadership Experience**

- Leadership positions, for example: vice principal, dean, head of department, section leader, chairman of boards, committees / councils or similar
- Assignment and membership in boards, committees and councils at universities
- Project management
- Leading or participating in a long-term strategic development at universities
- Ability to Create suitable conditions for conducting activities
- Ability to plan and adapt activities to financial restraints
- Management assignments in networks, associations and organisations in the subject area
- Positions of trust; for instance, representing own organisation in national and international organisations and working groups
- Evaluation assignments
- Starting and operating own business

### **Other qualifications in the area of administration and management**

A general requirement that applies to the applicant is to have the ability to collaborate as well as the competence and suitability needed for the position. Letters of recommendation from employers and other clients can form the basis for the evaluation of management skills, social skills, teamwork skills and initiatives.

### **Professional Experience**

Personal experience from the practice of the profession that the university education intends to lead to.

- Employment in the profession
- Activities in the profession
- Starting and operating own business
- Leadership and management experiences in the profession
- Participations and contributions in professional organisations and networks within the profession
- Participation and contributions in development projects and investigations of the profession

## Appendix 1

### Categorisation of publications

To facilitate for the presidium and experts the publication list is to be categorised by headings as listed below. The publications is to be given a serial number that covers all categories. Please note that the publications included in doctoral thesis or licentiate thesis should be marked with "\*\*\*". Publications which are not included in, but generally based on, doctoral thesis or licentiate thesis should be marked with "\*".

### Publication List

#### Doctoral and licentiate thesis

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**Articles in scientific journals indexed by e.g. ISI Web of Science, SciVerse Scopus, IEEE Xplore.**  
Specify the database and the date of search of journals.<sup>1</sup>

...

**Articles in other scientific journals with review procedure<sup>2</sup>**

...

**Articles in other journals**

...

**Articles in conference proceedings with review procedure**

...

**Articles in conference proceedings without review procedure**

...

**Books/book chapters with review procedure**

...

**Other books or book chapters**

...

<sup>1</sup> All articles in indexed journals should be included, even those which were published before the journal was indexed in the database. Example: article X was published in 2004 in journal Y, which at the time was not indexed in the database ISI Web of Science. Journal Y becomes 2006 indexed in the database ISI Web of Science, which now makes article X regarded as published in an indexed journal.

<sup>2</sup>Review procedure means a system where anonymous peer reviews are applied.