

The Norwegian University of Science and Technology (NTNU) in Trondheim represents academic eminence in technology and the natural sciences as well as in other academic disciplines ranging from the social sciences, the arts, medicine, teacher education, architecture to fine art. Cross-disciplinary cooperation results in innovative breakthroughs and creative solutions with far-reaching social and economic impact.

Faculty of Information Technology, Mathematics and Electrical Engineering

Department of Mathematical Sciences

Postdoctoral fellowship / PhD fellowship in Malicious cryptography

A postdoctoral fellowship within the field of malicious cryptography is available from September 1, 2015, at the Department of Mathematical Sciences, NTNU. The appointment has a duration of 3 years. The position is funded by the Norwegian National Security Authority (NSM). In the event that no suitable postdoctoral candidate is found, we will consider hiring a PhD candidate instead.

Job description

Malicious cryptography is about using cryptography for cyber attacks. We have already seen applications of malicious cryptography in so-called ransomware. Sophisticated attackers may want to use cryptography to hide an attack, the target of the attack, the source of the attack or to protect attack infrastructure (botnets).

The project goal is not to design sophisticated malware, but to understand the possible threats that we need to defend against.

Qualifications

A candidate for a postdoctoral fellowship should have a PhD in cryptology with a solid background in the techniques of provable security. A strong mathematical background is expected.

A candidate for a PhD fellowship should have a strong mathematical background (MSc in mathematics or equivalent) and preferably be familiar with the techniques of provable security.

It may be desirable for the candidate to be security cleared, which means that candidates from Norway or NATO countries may be preferred.

The regulations for PhD programmes at NTNU state that a Master degree or equivalent with at least five years of studies and an average grade of A or B within a scale of A-E for passing grades (A best) for the two last years of the MSc is required and C or higher of the BSc. Candidates from universities outside Norway are kindly requested to send a Diploma Supplement or a similar document, which describes in detail the study and grade system and the rights for further studies associated with the obtained degree.

Terms of employment

The appointment of the postdoctoral and PhD fellows will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees. Applicants for a PhD fellowship must agree to participate in organized doctoral study programs within the period of the appointment and have to be qualified for the PhD-study. PhD candidates will be required to enroll in a PhD program within the period of employment.

NTNU has a personal policy objective that the staff must reflect the composition of the population to the greatest possible extent. Applications from female candidates are particularly encouraged.

The appointment will be made according to the general regulations regarding university employees. The successful applicant must agree to the conditions laid down for public employees and must sign a contract regulating the starting date and the duration of the employment.

The postdoctoral position is placed in salary code 1352, salary level 57 in the Norwegian national salary scheme, corresponding to a gross income of NOK 483 400 per annum, of which 2 % is deducted for the State Pension scheme.

The PhD-position is placed in salary code 1017, salary level 50 - 62, gross income NOK 430 200 to 529 500 per year. From this salary 2 % will be deducted for the State Pension scheme. Starting salary is expected to be in salary level 50.

Further information can be obtained from Kristian Gjøsteen (e-mail: kristian.gjosteen@math.ntnu.no).

For information about NTNU and Trondheim, see www.ntnu.no and www.trondheim.no/engelsk

The application

Application with CV, appropriate certificates, publications and other scientific works, copies of transcripts, and reference letters should be submitted.

Applicants who do not master a Scandinavian language must provide evidence of good English language skills, written and spoken. The following tests can be used as such documentation: TOEFL, IELTS or Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE). Minimum scores are:

- TOEFL: 600 (paper-based test), 92 (Internet-based test)
- IELTS: 6.5, with no section lower than 5.5 (only Academic IELTS test accepted)
- CAE/CPE: grade B or A.

Under Section 25 of the Freedom of Information Act, information about the applicant may be made public even if the applicant has requested not to have his or her name entered on the list of applicants.

Applications must be submitted electronically through the link at this page.

Applications submitted elsewhere will not be considered.

The reference number of the position is: IME 044-2015.

Application deadline: August 7, 2015.

Jobbnorge ID: 115761, Deadline: Closed