



JOB DESCRIPTION

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| Job Title: | Postdoctoral Research Fellow (Information Security Group Smart card and IoT Security Centre (SCC)) |
| Department / Unit: | Information Security Department |
| Job type | Postdoctoral Research Fellow |
| Grade: | 7 |
| Accountable to: | Prof Konstantinos Markantonakis (PI) |
| Accountable for: | |
| Purpose of the Post | |
| <p>The Information Security Group (ISG) Smart Card and IoT Security Centre (SCC) at Royal Holloway University of London is seeking to appoint a highly motivated postdoctoral research fellow. The successful candidates will join the Smart Card and IoT Security Centre (SCC), supporting its research and commercialisation activities. The post is fixed-term, full-time for a period of 36 months, starting Nov-Dec 2021.</p> <p>The successful applicant will work with Prof Konstantinos Markantonakis and other members of the SCC (Dr Darren Hurley Smith and Dr Carlton Shepherd) in a number of key projects and initiatives. The successful candidate will be expected to contribute to all aspects of the research group and in particular enhancing our collaboration with industrial partners and the development of national and international research grant proposals.</p> <p>Eligible applicants will hold a PhD in Information Security as well as prior experience relevant to one or more of the following research areas: i) Trusted Execution Environments (TEE), ii) Media Broadcasting Security, iii) Trustworthy Autonomous Systems. Experience in the development of research grant proposals is essential.</p> | |
| Key Tasks | |
| <ul style="list-style-type: none"> • Lead innovative information security research (specifically in areas i-iii) and co-author high quality collaborative technical reports and research publications. • To identify, agree and pursue suitable funding opportunities with the SCC Director and Lecturer, and be personally responsible for all practical aspects (with support and guidance from the SCC) of submitting the bids. • Collaborate with SCC colleagues and students (UG, MSc, PhD) for research, innovation and commercialisation activities related to information security. • To engage with members of the research group, and the wider information security scientific community. | |

- To maintain a high quality laboratory (SCC) environment, including contributing to the teaching of final year undergraduate and UROP projects.
 - To provide ad-hoc support for SCC initiatives, training events, SCC Open day or other group events.
 - To write reports for submission to research sponsors.
 - To present findings to colleagues and at conferences.
 - To draft and contribute to publications for submission to refereed journals.
 - To attend relevant workshops, conferences and conference calls as necessary.
 - To take part in the supervision of postgraduate students.
 - To take initiatives in the planning of research.
 - To promote the reputation of the Group, the Department and the College.
 - Perform public dissemination of research and project outcomes (e.g. web page maintenance and social media presence).
 - Support the SCC activities, maintaining a pool of resources in the SCC lab and provide support around the organisation of the SCC open day or other group events.
- Contribute to the SCC activities as required by the Smart Card Centre Director or Lecturer that are commensurate with the grade.

Other Duties

The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the SCC. The post holder will be expected to undertake other duties as appropriate and as requested by his/her manager. The post holder may be required to work at any of the locations at which the business of Royal Holloway is conducted.

- To undertake appropriate administration tasks
- To attend relevant meetings
- To undertake any necessary training and/or development
- Maintain safe workplace practice and procedures in accordance with the requirements of Health and Safety legislation;
- To observe and comply with all College policies and regulations

Internal and external relationships

The following list is not exhaustive but the post holder will be required to liaise with:

- All members of the SCC.
- Technical, administrative and academic staff within RHUL.
- External project partners
- The wider scientific community, including for knowledge exchange, commercialisation and dissemination of scientific advances.

PERSON SPECIFICATION

Details on the qualifications, experience, skills, knowledge and abilities that are needed to fulfil this role are set out below.

Job Title: Postdoctoral Research Fellow

Department: Information Security Department

| | Essential | Desirable | Tested by Application Form/Interview/Test |
|---|-----------|-----------|---|
| Knowledge, Education, Qualifications and Training | | | |
| BSc and/or in Computer Science or related discipline | X | | <i>Application Form</i> |
| MSc in Information Security | | X | <i>Application Form</i> |
| PhD in information Security, computer science or a related discipline | X | | <i>Application Form</i> |
| Specific Skills, Experience & Knowledge | | | |
| Development of research grant proposals | X | | <i>Application Form/Interview</i> |
| Ability to evaluate/design/security architectures | X | | <i>Application Form/Interview</i> |
| IoT Platforms and Architectures | X | | <i>Application Form/Interview</i> |
| Automotive Security | | X | <i>Application Form/Interview</i> |
| Trusted Execution Environments (TEEs) | X | | <i>Application Form/Interview</i> |
| Avionics and Drone Security | | X | <i>Application Form/Interview</i> |
| Mobile Application Development and Security Analysis | | X | <i>Application Form/Interview</i> |
| Processor Side Channel Analysis Tools and Platforms | | X | <i>Application Form/Interview</i> |
| Ethical Dimensions of Information Security | | X | <i>Application Form/Interview</i> |
| Software Development | X | | <i>Application Form/Interview</i> |
| Research Experience | | | |
| Published Papers in conferences and journals | X | | <i>Application Form/Interview</i> |
| Information Security | X | | <i>Application Form/Interview</i> |
| Digital Forensics | | X | <i>Application Form/Interview</i> |

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| Secure Application Execution | X | | <i>Application Form/Interview</i> |
| Media Broadcasting Security | | X | <i>Application Form/Interview</i> |
| Other requirements | | | |
| Ability to work in collaborative team | X | | <i>Application Form/Interview</i> |
| Ability to communicate verbally and in writing | X | | <i>Application Form/Interview</i> |
| Ability to work with minimum guidance | X | | <i>References</i> |
| Good communication skills | X | | <i>Interview</i> |
| Ability to produce material to deadlines | X | | <i>References</i> |