**Project Title**: Next-Generation Security Operation Centre Research

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***Summary of the Project***: This proposal requests Departmental QR funding for a [feasibility study](http://searchsecurity.techtarget.com/feature/Designing-and-Building-Security-Operations-center) (Transforming, Embedding and Co-creation of Uber-SOCs) towards a new strategic programme in Cyber Security and Information Assurance research at Bournemouth University. The envisaged programme underpins our current Homeland Security Post-graduate Research, meets H2020 Societal Challenge and possible future UK [NCSC](https://www.ncsc.gov.uk/) funding. The National Cyber Security Strategy [2016-21](https://www.gov.uk/government/publications/national-cyber-security-strategy-2016-to-2021) has identified the need for Prevent and Development of socio-technical security engineering concepts to expand and enable global [next-generation cyber-security surveillance](http://www.forbes.com/sites/elenakvochko/2016/03/14/designing-next-generation-cyber-security-soc/#7df13e82cc09) and control system-of-systems. Such a programme will develop existing relationships with BUCSU industry partners, such as IBM, INTEL, Fujitsu, Selex-ES (Leonardo-Finmeccanica), RSA and will also enhance our reputation in [Global Security](http://www.newstatesman.com/sites/default/files/ns_cyber_security_supplement_march_2016_1.pdf) (BU Research Theme).

By understanding Uber-SOC embedded Information Assured Architecture (IAA), HCI Engineering and System Assurance, this proposed feasibility study of [SOC concepts](https://www.rsaconference.com/writable/presentations/file_upload/tech-203.pdf) that adapts the McCumber [Cube Model](https://www.crcpress.com/Assessing-and-Managing-Security-Risk-in-IT-Systems-A-Structured-Methodology/McCumber/p/book/9780849322327) (1991) and its [NIST](http://csrc.nist.gov/publications/nistpubs/800-33/sp800-33.pdf) replacement Maconachy, Schou & Ragsdale [Model](http://it210.groups.et.byu.net/theitbok_files/msrwpaper_1.pdf) (2001) will examine and evaluate what next-generation designs could develop when they adopt a new assurance model - Richardson’s (2012) [IA Cuboid](http://eprints.soton.ac.uk/355926/1.hasCoversheetVersion/Richardson.pdf) - to the co-creation of global hyperconnected Uber-SOCs. Using Strategic, Operational, Tactical and Cultural [Lens](http://www.virtueventures.com/files/fourlenses.pdf), Enterprise Architecture UBER-SOCS will co-create intelligence-led, risk managed operation that enhance trust, safety and security of digital-enabled Enterprises whilst mitigating CVE’s; inhibiting cyber-intrusion; detecting criminal weaponisation; and disrupting [cybercrime-as-a-service](https://www.dorset.police.uk/news-information/news-archive/police-launch-a-new-campaign-to-tackle-cyber-crime/) (CAAS).

**Research Assistant**: an **undergraduate research assistant** to work part-time on the project between Jan 2017 and Jun 2017. The set of skills required include:

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| **Learning skills** | Research constantly changes and evolves, and we want an RA who can grow and learn as changes come in. | Essential |
| **Strong work values** | Dependability, honesty, selfconfidence and a positive attitude are prized qualities in any profession. We look for personal integrity. | Essential |
| **Communication skills** | We want an RA who can accurately interpret what others are saying and organize and express their thoughts clearly. | Essential |
| **Teamwork** | The RA work involves working in one or more groups. We want someone who can bring out the best in others. | Essential |
| **Analytical and problem-solving skills** | We want an RA who can use creativity, reasoning and past experiences to identify and solve problems effectively | Essential |
| **Cyber Security /socio-technical literacy** | We expect the RAto be proficient with basic computer skills and have an understanding of Cyber Security Operations and Information Assurance | Essential |
| **Personal management skills** | The RA needs the ability to plan and manage multiple assignments and tasks, set priorities and adapt to changing conditions and work assignments | Desired |
| **Interpersonal effectiveness** | We want an RA who can relate to co-workers and build relationships with others at this University. | Desired |
| **Leadership/management skills** | We want our RA to be self- actualized, the ability to take charge and we are looking for signs of leadership qualities. | Desired |
| **Academic competence** | Although this research does not require calculus, it doesrequire the ability to read and comprehend instructions and perform basic math and satistics | Desired |

**Hourly rate: £**9.76

**Number of hours:** 267 hours