# Cyberpatterns 2013

## The Second International Workshop on Cyber Patterns:

### Unifying Design Patterns with Security, Attack and Forensic Patterns

http://tech.brookes.ac.uk/CyberPatterns2013

8-9 July 2013, Abingdon, Oxfordshire. UK.

# *** Call for Abstracts ***

**ORGANISED AND SPONSORED BY**

- Oxford Brookes University

**SUPPORTED BY**

- BCS Information Security Specialist Group
- BCS Formal Aspects of Computing Science Specialist Group
- BCS Cybercrime Forensics Specialist Group

**IMPORTANT DATES**

- **16 June 2013:** Abstract submission deadline
- **23 June 2013:** Notification of selection for presentation and inclusion in the proceedings
- **24 June 2013:** Registration deadline
- **8-9 July 2013:** Workshop

**PC CO-CHAIRS:**

- *Ian Bayley*, Oxford Brookes University, UK Email: ibayley@brookes.ac.uk
- *Clive Blackwell*, Oxford Brookes University, UK, Email: cblackwell@brookes.ac.uk

**PROGRAM COMMITTEE**

- Stefan Axelsson, Blekinge Institute of Technology, Sweden
- Benjamin Aziz, Portsmouth University, UK
- Sean Barnum, MITRE Corporation, USA
- Jonathan Bowen, London South Bank University and Museophile Limited, UK
- Bill Buchanan, Edinburgh Napier Univ., UK
- Ian Bryant, De Montfort University, UK
- Nathan Clarke, University of Plymouth, UK
- David Duce, Oxford Brookes University, UK
- Denis Edgar-Nevill, Canterbury Christ Church University, UK
- Barbara Endicott-Popovsky, Washington Univ., USA
- Shamal Faily, Oxford University, UK
- Steven Furnell, University of Plymouth, UK
- Michael Goldsmith, Oxford University, UK
- James Heather, University of Surrey, UK
- Les Hatton, Kingston University, UK
- Nigel Jones, Cranfield University, UK.
- Paul Kearney, BT, UK
- Kevin Lano, King's College London, UK
- Shaoying Liu, Hosei University, Japan
- Carsten Maple, University of Bedfordshire, UK
- Madjid Merabti, Liverpool John Moores, UK
- Faye Mitchell, Oxford Brookes University, UK
- Gareth Niblett, BCS Information Security Specialist Group, UK
- Richard Overill, King's College London, UK
- Luca Pino, City University, UK
- Alberto E. Schaeffer-Filho, UFRGS, Brazil
- Nicolas Sklavos, TEI of Patras, Greece
- George Spanoudakis, City University, UK
- Tim Storer, Glasgow University, UK
- Dianxiang Xu, Dakota State University, USA
- Hong Zhu, Oxford Brookes University, UK

**SUMBISSION WEBSITE:**

https://www.easychair.org/conferences/?conf=cyberpatterns2013

**WORKSHOP WEBSITE**

http://tech.brookes.ac.uk/CyberPatterns2013

**SUBMISSIONS**

Further contributions for presentation at the workshop and inclusion in the workshop proceedings are requested for two page abstracts (circa 750 words). All submission should be in PDF format and follow the Springer LNCS style and formatting guidelines at:

http://www.springer.de/comp/lncs

Submissions should be made by **16 June 2013** through the workshop's EasyChair submission web site at:

https://www.easychair.org/conferences/?conf=cyberpatterns2013

All submissions must be original work, not published or submitted elsewhere. All abstracts will be refereed by at least three reviewers. Abstracts will be selected based on their originality, timeliness, significance, relevance and clarity. The notification decision will be made by **23 June 2013**. At least one author of each accepted abstract will be required to present at the workshop.

This is the 2nd Cyberpatterns Workshop to be held in the Grade II listed Cosener's House. Details and proceedings of the first workshop can be found at http://tech.brookes.ac.uk/CyberPatterns2012. The workshop is inspired by existing work on the study of software design patterns and a vision of applying them to cybersecurity. There is widespread research in design patterns as representations of solutions to recurring design problems, including a growing body of knowledge of security patterns in designing and implementing robust defensive controls. Patterns also help us analyse security incidents, with possible adversarial behaviour modelled by attack patterns. There is significant interest on classifying incidents with attack patterns, as with the substantial catalogue in the CAPEC taxonomy. The emergence of patterns in modelling organisations and digital forensics could also be significant. Patterns are also important in pattern-matching algorithms widely used for detecting and responding to malicious activities.

The aim of the workshop is to explore commonalities and differences between the notions and uses of patterns in these various fields and to conceptualise them in a unified framework, in order to help put cybersecurity on a firmer theoretical foundation and provide aid in engineering secure systems. It will bring together interested parties from academia, industry and government to discuss issues of common interest to help bridge the gap between theory and practice.

**TOPICS**

Authors are invited to submit short abstracts that contribute to the workshop aims. Submissions may reflect, in the context of cybersecurity, on questions such as:

- What are the benefits and achievements of patterns in particular domains?
- What are the barriers to pattern uptake and how might these be overcome?
- How might the insights gained through using patterns in one domain generalise to others?
- What are the similarities and differences between prescriptive design patterns and descriptive patterns such as attack patterns?
- What is the relationship between design patterns and pattern matching?
- How do patterns help to underpin a 'science of security'?
- How do patterns contribute to knowledge reuse and engineering practice?
- What are the key issues facing practitioners that can be aided by patterns?
- Where are good cases studies showing the benefits and potential of the pattern abstraction?