Keynote Speaker 4

Anne James is Professor and Head of Computing and Technology at Nottingham Trent University. Holding BSc and PhD degrees in computer science and data modelling, she has been engaged in higher education for many years and has focused her research in the area of data and distributed systems. She has co-authored many peer-reviewed publications and has edited books, journals and conference proceedings. She has successfully directed many PhD projects, whilst also being active in international research collaborations and serving on the committees of a number of international conferences. She is currently a member of the Network Infrastructures and Emerging Technologies (NIET) research group at Nottingham Trent University. Her current projects include Cloud Forensics and Biometric Public Key Infrastructure. Formerly Anne held the position of Professor of Data Systems Architecture at Coventry University where she oversaw research degrees across her faculty.

Title: Cloud Forensics

Abstract: As cloud technology continues to evolve with vast amount of data being transmit daily, it has added another form of complexity in forensic investigation. It is very difficult to analyse system logs during forensic investigation as cloud service providers may not be willing to share their customers’ information with investigators. Furthermore a virtual machine set up in the cloud which hosts attacks might be shut down and thus logs associated with software and network access from the virtual machine would be lost. Additionally, cloud system logs transmitted over UDP or TCP packets without a robust encryption mechanism can be tampered. A further issue is that of dependency chains in the cloud where a user may use a service in one particular cloud, which in turn uses a service provided by another cloud and so on. Time and location disparities add further to the complexity. In a traditional physical network, users have significant control on their service providers (ISP) through contract agreements and policies. Cloud users lose control due to their dependency on the services which in turn depend on other services. The keynote presentation will outline the difficulties of Cloud forensics and offer some solutions.