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About

Steven Quigley is senior lecturer in digital systems in the School of Electronic, Electrical and Computer Engineering.

He has published over 50 research papers in refereed scientific journals and conferences in the areas of analogue and digital circuit design and novel computer architectures.

He has received major grants from EPSRC, DTI, Teaching Company Directorate, Micron Technology, Goodrich and TRW.

Qualifications

• PhD Electronic Engineering, 1988
• BSc (Hons) Physics, 1983

Biography

Steven Quigley graduated in 1983 with a 1st class honours B.Sc. Physics from the University of Birmingham. From 1983 to 1986 he studied for a Ph.D. on the numerical simulation of the internal behaviour of sub-micron transistors. From 1986-1988 he was employed on a research contract on electro-thermal interactions in bipolar transistors used in power electronic circuits.

In 1988 he became a lecturer, and in 2002 a senior lecturer, at the University of Birmingham.

Teaching

Teaching Programmes

• EE3A1 Computer Hardware and Digital Design
• EE4G Digital Design
• MSc Advanced Digital design

Postgraduate supervision

Current and recent projects:

• Lin Zhang : Numerical Simulation of Granular Media using Reconfigurable Computing and GPU Computing

• Jing Hu: Partial Differential Equation Solutions based on Reconfigurable Computing,

• Abed Abu-Issa: Testing of Digital VLSI Circuits with Low Power Consumption and High Fault Coverage

• Phak Len Eh Kan: Speaker Verification using Reconfigurable Computing

• Simon Parish: Behavioural synthesis of circuits for aerospace condition monitoring systems

• Dawn Dolcy: Predictive Network Resource Allocation and QoS Provisioning

Research

RESEARCH THEMES
Novel computer architectures
Reconfigurable computing
GPU computing
Digital systems design and test

Publications

Phaklen EhKan, Timothy Allen, Steven F. Quigley (2011), FPGA Implementation for GMM-Based Speaker Identification, International Journal of Reconfigurable Computing, vol. 2011, Article ID 420369, 8 pages, 2011. doi:10.1155/2011/420369.

AS Abu-Issa and SF Quigley (2009), Bit-Swapping LFSR and Scan Chain Ordering: A Novel Technique for Peak and Average Power Reduction in Scan-Based BIST, IEEE

Transactions on Computer-Aided Design of Integrated Circuits and Systems, pp. 755-759, Vol. 28, No. 5
Digital Object Identifier 10.1109/TCAD.2009.2015736

AS Abu-Issa and SF Quigley (2008), Bit-Swapping LFSR for Low Power BIST, Electronics Letters, Vol. 44, no. 6, pp.401-403

DSL Dolcy, CC Constantinou; SF Quigley (2007), A Fokker-Planck Equation Method Predicting Buffer Occupancy in a Single Queue, Computer Networks Journal, 51(8), pp. 2198-2216

B Wilkinson and SF Quigley, The essence of digital design (Mainland China edition: bilingual English/Chinese with supplement on VHDL), China Machine Press, 1998

S Bull, SF Quigley and A Mabbott (2006), Computer-Based Formative Assessment to Promote Reflection and Learner Autonomy, J Engineering Education, Vol. 1, No. 1

B Carrión-Schäfer, SF Quigley and AHC Chan (2004), Acceleration of the Discrete Element Method (DEM) on a reconfigurable co-processor, Computers and Structures Journal, vol. 82, no 20-21, pp. 1707-1718, 2004

SJ Melnikoff and SF Quigley (2003), Implementing the log-add algorithm in hardware, Electronics Letters, Vol 39, no 12, pp 939-941

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