CURRICULUM VITAE

Dr Soha Maad
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BRIEF OVERVIEW OF ACTIVTIES

Soha Maad obtained her PhD from The University of Warwick in UK in 2002. She has 12 years of research experience in the application of Information and Communication Technologies (ICT) in various application domains. Her research experience gained during her PhD study at the University of Warwick in UK, her ERCIM fellowship at Fraunhofer Institute of Media Communication in Germany, her Post-doc at INRIA in France, her research fellowship at Trinity College Dublin, and her associate membership at Royal College of Surgeons in Ireland, aimed at developing enabling frameworks, tools and technologies to drive innovation across domain verticals including sustainable growth (water, energy, environment, eco life style), healthcare, e-government and governance, and other various business and social domains.

Soha Maad was involved in various projects funded by the European Union, Science Foundation Ireland, the National Center for Scientific Research in France (CNRS), and the Federal Ministry of Education and Research (BMBF) in Germany. Various thematic fields were covered in these projects including innovation, governance, and enabling tools and technologies to drive innovation. These tools and technologies include e-infrastructures, universal accessibility, interactive television, augmented reality and digital image processing, distributed grid technology and high performance computing and the application of these tools and technologies to drive innovation across domain verticals.

Soha Maad was also the coordinator/principal investigator of European Union and Science Foundation Ireland SFI proposals at Trinity College Dublin, the Royal College of Surgeons in Ireland, and University College Cork.

Soha Maad was the recipient of six Enterprise Ireland Grants to coordinate EU proposals:
1. FP7 ICT Call 5 proposal on cloud Computing
2. FP7 Marie Curie Initial Training Network ITN proposal (at Trinity College Dublin) - (2 successful grants)
3. FP7 Marie Curie Industry Academia Partnerships IAPP Proposal
4. ICT Policy Support Program Proposal on telemedicine at the Royal College of Surgeons in Ireland
5. EU FP7 Regions of knowledge proposal

Soha Maad Speaks English (fluent), French (fluent), Arabic (fluent), Spanish, German

RESEARCH INTERESTS

❑ Leading innovation across domain verticals
❑ Developing novel models of public private partnerships
❑ Establishing links between triple helix entities composed of Higher Education Institutions, Public entities, and industry

1. EDUCATIONAL BACKGROUND

PhD in Computer Science, Warwick University, United Kingdom.

Master's of Sciences (MSc), American University of Beirut, Beirut, Lebanon.

Bachelor of Engineering (BE), American University of Beirut, Beirut, Lebanon.

French Baccalaureate, Série D , Lyon , France.

2. RESEARCH EXPERIENCE

2.1 Posts Held

Founder and Manager, IGROW EEIG (Integrated Technologies and Services for Sustainable Growth European Economic Interest Grouping), Invent DCU, Dublin City University, Glasnevin, Dublin 9, Ireland.

Associate member of HRB Centre for Primary Care Research, Royal College of Surgeons in Ireland (RCSI), Dublin, Ireland

Coordinator, EU FP7 proposals, recipient of six Enterprise Ireland grants to coordinate European Union EU Framework Program 7 proposals in various areas including enabling technologies (cloud computing and smart cities), telemedicine, industry academia partnerships and leading innovation in regions of knowledge.

Research Fellow, TCD, Computer Architecture and Grid Research Group, University of Dublin - Trinity College Dublin, Dublin, Ireland. (Nov 04 - Mar 08)

Post-doc INRIA, LIRIS Lab, France. (October 2003- September 2004)

ERCIM Fellow , Fraunhofer IMK, ITV Competence Center, Germany (Apr 02– Oct 03)

Research Assistant, Faculty of Engineering and Architecture, American University of Beirut

2.2 Research Themes

EU projects to develop enabling frameworks, tools and technologies to drive innovation across domain verticals including healthcare, e-government and governance, sustainable growth (water, energy, environment, eco life style), and other various business and social domains.

Research Fellow TCD: *Developing Grid Ireland Infrastructure, SFI funded Webcom-G*

Post-doc INRIA: *Augmented Reality, Digital Image Processing, CYBERII Project*

ERCIM Fellow: *Authoring Media Content For Interactive Television*

PhD thesis: *Software Engineering for Finance*

2.3 Projects

Webcom-G, High Performance Grid Computing, Trinity College Dublin, Ireland

CYBERII, LIRIS Lab, France

MARILYN, Fraunhofer IMK, ITV Competence Center, Germany.

M3D (Media-3D), Fraunhofer IMK, ITV Competence Center, Germany.

Virtual Monopoly Dealer, Warwick University, UK.

EM Collaborative Environments, Warwick University, UK.

Long Horizon Events Study, DCS, WBS, Warwick University, UK.

Enterprise Software Integration, Warwick University, UK.

2.4 Supervision

PhD Thesis of Ronan Watson, Trinity College Dublin, Ireland. (co-Mentor)

Diploma MSc Thesis of Tamer Messih, Fraunhofer IMK, Germany.

Development, **Medi@Train - M3D project**, Fraunhofer IMK, Germany.

2.5 Publications / Research Works (36 papers and 1 book)

*3 Books and book chapters; **10** Journal papers / Lecture Notes In Computer Sciences ;* **26** *Conference* papers

Research Reports / Thesis: 2 reports; 2 theses

2.6 Presentations/Talks (12 invited talks)

2.7 Research Skills

Driving innovation across various domain verticals using enabling tools and technologies.

Enabling technologies include:

Media Technology – Interactive TV – Distributed High Performance Grid Computing - Software Engineering – Wireless Technologies – Augmented / Virtual Reality – Digital Image Processing

Domain verticals include:

Healthcare – e-Government- Global Business Systems – Finance- Management – Languages technologies – Digital Humanity and Preservation – Sustainable Growth (water/energy/environment)

3. TEACHING EXPERIENCE

3.1 Posts Held

PhD co-Mentor, University of Dublin, Trinity College Dublin, Dublin, Ireland.

MSc Research Supervisor, Fraunhofer Inst. of Media Communication, Germany.

Seminar Tutor, Department of Computer Sciences, Warwick University, UK.

Lab Instructor, Department of Computer Sciences, Warwick University, UK.

Software Engineering Consultant, Dept. of Computer Sciences, Warwick Univ., UK.

Administration / Timetabling, Dept. of Computer Sciences, Warwick Univ., UK.

Lab Instructor, Faculty of Engineering and Architecture, American University of Beirut

Lab Course Instructor, Faculty of Arts & Sciences, American University of Beirut.

3.2 Qualifications

Qualified as "Maître de Conférence" by the Ministry of Education and Research in France.

3.3 Teaching Skills

Innovation, Grid, Networking, Distributing Computing, Grid Technology, Media Content Authoring, Wireless and Interactive TV technologies, JAVA, C/C++, Fortran, Design of Information Structure, Computer Organization and Architecture, Analogue and Digital Communication, Object Oriented Programming (UML), Numerical Analysis, Electronics.

4. PEER REVIEW COMMITTEE / ORGANIZATION OF EVENTS

Cognitive Technology 2001 Conference held at Warwick University in United Kingdom

Workshop on Geometric Modelling (Journées GTMG - Groupe de Travail en Modélisation Géométrique, held at Université Claude Bernard Lyon 1 in Lyon – France, 10-11/03/2004

Applied Informatics (AI 2002) conference, held in February 2002 in Austria.

IEEE MultiMedia Magazine

5. MEMBERSHIPS

IEEE Society, USA	http://www.computer.org/
SDPS Society, USA	Integrated Design and Process Science http://www.sdpsnet.org/
WGA, UK	Warwick Graduation Association, http://www.wgaalumni.co.uk/
AAA, Lebanon	AUB Alumni Association, American University of Beirut, Lebanon
Syndicat of Engineers	Beirut –Lebanon

6. AWARDS

- Leading Edge Paper on Infrastructures For Global Business Systems, ISEing, EMCIS 2008

- Best Paper IADIS conferences (e-Society 2007)

- ERCIM Fellowship at Fraunhofer Institute of Media Communication in Germany (2002/3)

- Saudi Arabia IDB Merit Scholarship Award endorsed by Ministry of Lebanese Republic

- Scholarship Award, Prime Minister Hariri Foundation For Higher Education in Lebanon

7. LANGUAGES PROFICIENCY

English – French – Arabic - Spanish - German

LIST OF PUBLICATIONS

BOOKS

[1] Grid Computing - Technology and Applications, Widespread Coverage and New Horizons, **edited by Soha Maad**, ISBN 978-953-51-0604-3, Hard cover, 354 pages, Publisher: InTech, Published: May 16, 2012 under CC BY 3.0 license
DOI: 10.5772/2290
http://www.intechopen.com/books/grid-computing-technology-and-applications-widespread-coverage-and-new-horizons

[2] Augmented Reality, **edited by Soha Maad,** The Horizon of Virtual And Augmented Reality: The Reality of the Global Digital Age, ISBN 978-953-7619-69-5, 230 pages, Published by Intech, Publishing date: January 2010.
http://sciyo.com/books/show/title/augmented-reality?PHPSESSID=4limatdbk6le2po0e36cdn45c6

BOOK CHAPTERS

Boosting Economic Growth Through Advanced Machine Vision, By Soha Maad, Samir Garbaya, Nizar Ayadi and Saida Bouakaz, DOI: 10.5772/34639, in "Human-Centric Machine Vision", book edited by Manuela Chessa, Fabio Solari and Silvio P. Sabatini, ISBN 978-953-51-0563-3, Published: May 2, 2012 under CC BY 3.0 license
http://www.intechopen.com/books/human-centric-machine-vision/boosting-economic-growth-through-advanced-machine-vision

PUBLICATIONS IN PEER REVIEWED JOURNALS

[1] **Maad S,** Dimitrov D B, Fahey T, , A concept for a long-term scalable bioengineering model of primary care, *Int. J. of Business Information Systems, 2012 Vol.9, No.4, pp.465 - 483*

[2] **Maad S** and Coghlan B, The Next Generation Grid: An Infrastructure for Global Business Systems, *International Journal for Business Information systems: Business Modelling and Simulations IJBIS. Int. J. Business Information Systems,* Vol. 6, No. 1, 2010, pages 95-110, INDERSCIENCE PUBLISHERS.

[3] **Maad S** and Coghlan B, Assessment of the Potential Use of Grid Portal Features in eGovernment, *Journal of Transforming Government: People, Process and Policy* (ISBN 1750-6166) 2008; 2, (2): 128 – 138.

[4] **Maad S,** Coghlan B, Watson R., et al.,, Universal Accessibility to the Grid: a Social Agent Model for the road ahead, *IADIS International Journal on WWW/Internet* 2007; 5(2): 130 – 146.

[5] **Maad S**, Coghlan B, Quigley G, *et al*. Towards a Complete Grid Filesystem Functionality, *Journal of Future Generation Computer Systems* 2007; 23(1): 123-131.

[6] **Maad S,** Coghlan B, Quigley G, et al., A Grid Filesystem: A Key Component For Managing the Data Centre In the Enterprise, accepted to the *Special Issue on Grid Computing for Enterprise, Scalable Computing: Practice and Experience Journal*

[7] **Maad S,** Garbaya S, Bouakaz S, From Virtual to Augmented Reality in Finance : A CYBERII Application, *Journal of Enterprise Information Management* 2008; 21(1):71-80.

[8] **Maad S,** Universal Access For Multimodal ITV Content: Challenges and Prospects,
Universal Access. Theoretical Perspectives, Practice, and Experience, N. Carbonell, C. Stephanidis (Editors), *Lecture Notes in Computer Science*, Springer-Verlag, Heidelberg, Vol. 2615 / 2003, Jan 2003, pp.195-208.

[9] Chakaveh S, Skaley D, Laine P, Haeger R, and **Maad S,** M3D (Media 3D): a new programming language for web-based virtual reality in E-Learning and Edutainment , *SPIE Int. Soc. Opt. Eng., Internet Imaging IV*, Santini, S., Schettini, R. (Editors), Volume 5018, Visual Languages For The Web, pp. 228-235.

[10]   Beynon M, Ch'en, Y C, Hseu H W, **Maad S,** *et al.*, Cognitive Technology: Instruments of Mind, M. Beynon, C.L. Nehaniv, K. Dautenhahn (Eds.), *Lecture Notes in Computer Science*, Springer-Verlag Heidelberg, ISSN: 0302-9743, Volume 2117/2001, Jan 2001, p. 476 .

PUBLICATIONS IN REFEREED CONFERENCE PROCEEDINGS

[1]   **Maad S**, DIGIDO: Scalable Systems and Services for Preserving Digital Content from Various Application Domains, Proc. Transforming Government 2010 (tGov2010), Brunel University, West London, UK, March 18-19, 2010, CDROM

[2]   **Maad S**, McCarthy JB, Garbaya S, Beynon M, Nagarajan R, Service Software Engineering For Innovative Infrastructure For Global Financial Services, Proc. European and Mediterranean Conference on Information Systems 2010 (EMCIS10), Abu Dhabi, United Arab Emirates, April 12-13, 2010, CDROM.

[3]   Weerakkody V, Irani Z, Lee H, Kamal M, Skiftenes Flak L, Sæbø Ø, Janssen M, Niehaves B, Becker J, Räckers M, Osman I, Hindi K, Ozkan S, Balci A, Medeni T, Banister F, **Maad S,** Technology Road Mapping for E-Government: A Research Note, CD-ROM/Online Proceedings of the European and Mediterranean
Conference on Information Systems (EMCIS), 2009, 13-14 July, The Crowne Plaza, Izmir, Turkey, Editors: Prof Zahir Irani, Dr Ahmad Ghoneim, Dr Maged Ali, Dr Sarmad Alshawi, Assistant Prof Omur Y.Saatcioglu, Prof A.Güldem Cerit , ISBN: 978-1-902316-69-7

[4]   **Maad S,** Dimitrov B, Fahey T, A Concept for a Long-Term Scalable Primary Care Model, CD-ROM/Online Proceedings of the European and Mediterranean
Conference on Information Systems (EMCIS), 2009, 13-14 July, The Crowne Plaza, Izmir, Turkey, Editors: Prof Zahir Irani, Dr Ahmad Ghoneim, Dr Maged Ali, Dr Sarmad Alshawi, Assistant Prof Omur Y.Saatcioglu, Prof A.Güldem Cerit , ISBN: 978-1-902316-69-7

[5]   **Maad S,** and Coghlan B, The Next Generation Grid: An Infrastructure for Global Business Systems, European and Mediterranean Conference on Information Systems 2008, Dubai, May 25-26 2008, CDROM ISBN: 978-1-902316-58-1

[6]   **Maad S,** Coghlan B, Pierantoni G, *et al.*, Towards Greater Grid Universal Accessibility: Initial Benchmarks and the Road Ahead, Proc. Crakow Grid Workshop 2007, Crakow, Poland, 2007, 2008, pp.188 – 195

[7]   **Maad S** and Coghlan B, Assessment of the Potential Use of Grid Portal Features in eGovernment, eGov 2007 Workshop, 12 Sep 2007, Leeds Metropolitan University

[8]   **Maad S,** Coghlan B, Watson R, *et al.*, Universal Accessibility to the Grid: A Social Agent Model for the Road Ahead, IADIS International Conference e-Society 2007 Lisbon, Portugal 3-6 July 2007

[9]   **Maad S,** Coghlan B, Pierantoni G, *et al.*, New frontiers for grid applications, Proc. European and Mediterranean Conference on Information Systems 2006 (EMCIS06), Alicante, Spain, July 6-7, 2006, (ISBN: 1-902316-46-0), CDROM

[10]   **Maad S,** Coghlan B, Kenny E, *et al.*, Grid Enabling e-Government through a Universal Accessibility Grid Layer, e-Society 2006, Dublin, Ireland, Jun 06.

[11]   **Maad S,** Coghlan B, Quigley G, *et al.*, Universal Accessibility to the Grid via Metagrid Infrastructure, 1st EGEE User Forum, Switzerland, Mar 2006.

[12]   **Maad S,** Coghlan B, Pierantoni G, *et al.*, Adapting the Development Model of the Grid Anatomy to meet the needs of various Application Domains, Proc.Cracow Grid Workshop 2005, Crakow, Poland, Nov 2005, pp350 – 357

[13]   **Maad S,** Coghlan B, Ryan J, *et al.*, The Horizon of the Grid For E-Government, Proc. eGov'05 Workshop, Brunel, UK, Sep 05

[14]   Watson R, **Maad S,** and Coghlan B, Virtual grid: adaptive visualization of grids, CGW'07 proceedings, Crackow Grid Workshop, Poland, Oct 2007, p204 – 211.

[15]   Watson R, **Maad S,** and Coghlan B , Multiscale multimodal visualization on a grid, Proc. Crakow Grid Workshop 2006, Poland, October, 2006, pp535 – 542

[16]   Coghlan B, Quigley G, **Maad S,** *et al.*, A transparent grid filesystem, Lecture Notes in

Computer Science / Applied Parallel Computing. State of the Art in Scientific Computing, edited by Kågström B. et al. , 4699, Springer, 2007, pp309 – 318

[17] Watson R, **Maad S,** and Coghlan B, Integrating a Common Visualization Service into a Metagrid, Workshop on State-of-the-Art in Scientific and Parallel Computing (PARA06), Umea, Sweden , June 18-21, 2006.

[18] **Maad S** and Bouakaz S, Novel Application of Media Technology : CYBERII Incrustation in a Virtual World of Financial Indicators, European Conference on Combinatorial Optimization ECCO XVII- 2004, June 2004, Beirut, Lebanon.

[19] **Maad S** and Bouakaz S, Geometric Modelling of Moving Virtual Humans: A Survey of Various Practices, Groupe de Travail en Modélisation Géométrique, 2004

[20] **Maad S,** The potential and pitfall of Interactive TV Technology: An Empirical Study, MIT3: Media In Transition 3 Conference - Television in Transition, Massachusetts Institute of Technology MIT, Cambridge, USA, May 2-4, 2003

[21] **Maad S,** MARILYN: A Novel Platform For Intelligent Interactive TV (IITV), Human-Computer Interaction, Theory and Practice (Part 1), Volume 1, Julie A. Jacko and Constantine Stephanidis (editors), LAWRENCE ERLBAUM ASSOCIATES, INC. Publishers, Mahwah, NJ 07430-2262, ISBN: 0-8058-4930-0, year 2003, Section 6. Learning and Edutainment, pp. 1041-1045.

[22] **Maad S,** Novel Software System Development For Finance, Business Information Technology: Semantic Futures, 12th Annual BIT Conference Proceedings, November 6 & 7, 2002, Ray Hackney (Ed.), ISBN 0905304438, MMUBS Manchester Metropolitan University Business School, Manchester, UK, CDROM

[23] **Maad S,** Beynon M, Garbaya S, Realising Virtual Trading: What Price Virtual Reality?, Usability Evaluation and Interface Design: Cognitive Engineering, Intelligent Agents and Virtual Reality, M.J. Smith, G. Salvendy, D. Harris, R.J. Koubek (editors), Lawrence Erlbaum Associates, Mahwah, N.J., ISBN: 0-8058-3607-1, Volume 1, 2001, Part II: Virtual Reality, pp. 1007.

[24] Beynon M and **Maad S,** Empirical Modelling of Real Life Financial Systems: The need for Integration of Enabling Tools and Technologies, in proc. of The Fourth World Conference On Integrated Design & Process Technology, IEEE International Conference on Systems Integration, June 1999, USA, Texas, ISBN 1090-9389

[25] Beynon M and **Maad S,** Integrated Environments for Virtual Collaboration: an Empirical Modelling Perspective, in proceeding of The Fifth World Conference On Integrated Design & Process Technology, Incorporating IEEE International Conference on Systems Integration, June 2000, Texas, USA, ISBN 1090-9389, CD.

[26] Beynon M, Ashley W, **Maad S,** *et al.*, The Temposcope: a Computer Instrument for the Idealist Timetabler, proc. PATAT 2000 - The 3rd int. conference on the Practice And Theory of Automated Timetabling, Aug 2000, Germany, ISBN 3-00-003866-3