CURRICULUM VITAE



CHEAH YU-N

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PROFILE

Cheah Yu-N is a lecturer at the School of Computer Sciences, Universiti Sains Malaysia. He obtained his B.Comp.Sc. (Hons) in July 1998 and his Ph.D. in August 2002 from Universiti Sains Malaysia. Yu-N is currently the Head of the Health Informatics Research Group and is involved in research on Health Informatics, Knowledge Management and Intelligent Systems. His other areas of research include Tacit Knowledge Explication and Crystallisation, Coalition Formation, Ontologies, Organisational Modelling, Organisational Memories and Problem-Based Learning.

PERSONAL PARTICULARS

| Identity Card Number Date of Birth Gender Marital Status Interests | 740614-08-5277 (A2767866) 14 June 1974 Male Married Music, travelling, jungle trekking, gardening, tennis, swimming and reading. |
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| EDUCATION | |
| 1998 – 2002 | Doctor of Philosophy in Computer Science Universiti Sains Malaysia 11800 USM Penang |
| 1994 – 1998 | Bachelor of Computer Science (First Class Honours) Minor: Management Universiti Sains Malaysia 11800 USM Penang |
| 1992 | Licentiate Teacher's Diploma in Pianoforte Trinity College of Music, London |
| 1991 | Licentiate Performer's Diploma in Pianoforte Guildhall School of Music and Drama, London |
| 1990 | Associate Teacher's Diploma in Pianoforte Trinity College of Music, London |

| 1989 1988 | Licentiate Performer's Diploma in Electronic Organ Guildhall School of Music and Drama, London Licentiate Performer's Diploma in Pianoforte Trinity College of Music, London Associate Performer's Diploma in Pianoforte Trinity College of Music, London |
|---|--|
| WORKING EXPERIENCE August 2002 – Present | Lecturer School of Computer Sciences Universiti Sains Malaysia 11800 USM Penang Lecturing undergraduate/postgraduate courses and Health Informatics research. |
| March 2002 – August 2002 | Tutor School of Computer Sciences Universiti Sains Malaysia 11800 USM Penang Lecturing undergraduate courses and Health Informatics research. |
| March 1998 – September 1998 | Associate Consultant PricewaterhouseCoopers 11th Floor, Wisma Sime Darby Jalan Raja Laut P.O. Box 10192 50706 Kuala Lumpur Attached to the Operational and Systems Risk Management department. |
| November 1996 – April 1997 | Industrial Trainee School of Computer Sciences Universiti Sains Malaysia 11800 USM Penang Responsible for developing intelligent web-based applications and interface designing. |
| COURSE ATTENDED August 2002 | Writing Workshop: Converting a Thesis into a Book Universiti Sains Malaysia Publications Penang, Malaysia |

CONSULTING AND RESEARCH ACTIVITIES

| April 2003 | Appointed as Technical Evaluation Panel Member for Industrial Research and Development Grant Scheme (IGS), Ministry of Science, Technology and Environment, Malaysia. |
|----------------------------|---|
| March 2003 | SCICAD: A Shrink-Wrapped Customisable Info-Commerce Automated Deployment System for Multimedia Prospect Sdn. Bhd. |
| November 2002, August 2003 | Appointed as consultant for Technology Assessment for the Multimedia Super Corridor Research and Development Grant Scheme (MGS). |

RESEARCH GRANTS

| 1. | Title: | A Tacit Healthcare Knowledge Explication Info-Structure Using |
|----|----------------------|---|
| | | Contrived Knowledge Acquisition and Representation Approaches |
| | Funding Institution: | Universiti Sains Malaysia Short Term Grant |
| | From: | 15 January 2003 |
| | To: | 14 January 2005 |
| | Position: | Project Leader |
| | Grant Amount: | RM16,942.00 |
| 2. | Title: | An Info-Structure for the Acquisition of Expert Tacit Healthcare Knowledge: The Explication and Crystallisation of Tacit Healthcare Knowledge |
| | Funding Institution: | Intensification of Research in Priority Areas (IRPA), Ministry of Science, Technology and Environment, Malaysia |
| | From: | April 2002 |
| | То: | September 2003 |
| | Position: | Project Leader |
| | Grant Amount: | RM315,500.00 |
| 3. | Title: | A Clinical Case Acquisition and Transcription Info-Structure: The Acquisition, Cleansing and Transformation of EPR to Clinical Cases |
| | Funding Institution: | Intensification of Research in Priority Areas (IRPA), Ministry of Science, Technology and Environment, Malaysia |
| | From: | April 2002 |
| | To: | September 2003 |
| | Position: | Co-Researcher |
| 4. | Title: | An Info-Structure for Healthcare-Centred Dynamic Intelligent Knowledge Services |
| | Funding Institution: | Intensification of Research in Priority Areas (IRPA), Ministry of Science, Technology and Environment, Malaysia |
| | From: | April 2002 |
| | То: | September 2003 |
| | Position: | Co-Researcher |
| | | |

| 5. | Title: | Web-based Personalised Wellness Maintenance Info-Structure: Towards An Intelligent Tele-Healthcare Environment Offering Person-Centric and Wellness-Oriented Decision-Support Services |
|----|----------------------|--|
| | Funding Institution: | Intensification of Research in Priority Areas (IRPA), Ministry of Science, |
| | - | Technology and Environment, Malaysia |
| | From: | April 2002 |
| | To: | September 2003 |
| | Position: | Co-Researcher |
| r | | |
| 6. | Title: | An Intelligent Healthcare Assistant for Knowledge Adaptation and |
| | | Retrieval from Healthcare Knowledge Repositories |
| | Funding Institution: | Intensification of Research in Priority Areas (IRPA), Ministry of Science, Technology and Environment, Malaysia |
| | From: | April 2002 |
| | То: | September 2003 |
| | | • |
| | Position: | Co-Researcher |
| 7. | Title: | An Info-Structure for the Delivery of Personalised Healthcare Information over the Internet: Health Profile Generation, Constraint-Based Document Generation and Document Delivery |
| | Funding Institution: | Intensification of Research in Priority Areas (IRPA), Ministry of Science, Technology and Environment, Malaysia |
| | From: | April 2002 |
| | To: | September 2003 |
| | Position: | Co-Researcher |
| | | |

ACADEMIC ACTIVITIES

| March 2004 | Referee for the Journal of Information and Communication Technology (JICT), Universiti Utara Malaysia. |
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| July 2003 | Referee for the 2004 International Medical Informatics Association (IMIA) Yearbook of Medical Informatics |

PUBLICATIONS

Journal Papers

- 1. Y.-N. Cheah and S.S.R. Abidi (2001) Capturing Tacit Healthcare Knowledge via an Intelligent Info-Structure featuring Knowledge Standardization and Repair Mechanisms, *Medicinska Informatika 2001 (Journal of the Croatian Society for Medical Informatics 2001)*, Vol. 5, pp. 49-52.
- Y.-N. Cheah and S.S.R. Abidi (2001) The Role of Information Technology in the Explication and Crystallization of Tacit Healthcare Knowledge, *Health Informatics Journal*, Vol. 7, Nos. 3/4, pp. 158-167.

Published Conference Papers

 Y.H. Chong and Y.-N. Cheah (2004) Credibility-Chart and Dual-Memory Referencing for Robust and Efficient Agent Search in Coalition Formation, *International Conference on Intelligent Knowledge Systems (IKS 2004)*, Troy, Turkey.

- Y.-N. Cheah and F.A. Rashid (2004) An Enhanced Electronic Health Community with Knowledge-Based E-mail and Agent-based Knowledge Search and Sharing, *IADIS International Conference e-Society 2004*, Avila, Spain.
- Y.-N. Cheah, Y.H. Chong and S. Manickam (2004)
 A Platform for Enterprise-Wide Healthcare Knowledge Management. *Knowledge Management International Conference and Exhibition (KMICE 2004)*, Penang, Malaysia.
- 4. S. Karthigasoo, S. Manickam and Y.-N. Cheah (2004) Analysing Visual Field and Diagnosing Glaucoma Progression using a Hybrid of Per Location Differences and Artificial Neural Network Ensembles. *Knowledge Management International Conference and Exhibition (KMICE 2004)*, Penang, Malaysia.
- S. Singh, S. Manickam and Y.-N. Cheah (2003) Knowledge Based Cellular Automata for Knowledge Categorisation and Organisation, *The Second International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2003)*, Singapore.
- S.L. Neoh and Y.-N. Cheah (2003) A Knowledge- and Agent-based Coalition Formation Framework for Surgical Team Formations and Resource Allocation, *The Second International Symposium on Information Technology* (*ITSim2003*), Kuala Lumpur, Malaysia.
- S. Karthigasoo, S. Manickam and Y.-N. Cheah (2003) Analyzing Visual Field and Diagnosing Glaucoma Progression Using a Hybrid of Per Location Differences and Rough Set Techniques, *The Second International Symposium on Information Technology (ITSim2003)*, Kuala Lumpur, Malaysia.
- 8. S. Karthigasoo, S. Manickam and Y.-N. Cheah (2003) An Approach to Analyze Visual Field and Diagnose Glaucoma Progression Using Artificial Neural Network Techniques, *IADIS International Conference WWW/Internet 2003*, Algarve, Portugal.
- 9. Z.I. Hashmi, S.S.R. Abidi, S.Z.H. Zaidi, Y.-N. Cheah and K.G. Lim (2003) Intelligent Agent Modeling and Generic Architecture Towards a Multi-Agent Healthcare Knowledge Management System, *IADIS International Conference WWW/Internet 2003*, Algarve, Portugal.
- N.A.A. Alim, W.N.W. Hasan, F.A. Rashid and Y.-N. Cheah (2003) Scope of Telehealth Research Projects in Universiti Sains Malaysia, *International Conference on Advancement in Science and Technology (iCAST 2003)*, Kuala Lumpur, Malaysia. (Poster Paper)
- K.G. Lim and Y.-N. Cheah (2003) Sharing, Evaluating and Organizing E-Mail: The KM-Mail Approach, *The Third International Conference on Information Technology in Asia (CITA 2003)*, Kuching, Sarawak. (Awarded Best Paper)
- 12. Y.-N. Cheah and K.G. Lim (2003) KM-Mail: An Approach for Sharing, Evaluating and Organizing Knowledge-Rich E-mail, *The* 2003 International Conference on Information and Knowledge Engineering (IKE 2003), Las Vegas, Nevada, USA.
- Y.-N. Cheah, F.A. Rashid and S.S.R. Abidi (2003) An Approach to Enrich Online Medical Problem-Based Learning with Tacit Healthcare Knowledge, *Medical Informatics Europe (MIE 2003)*, St. Malo, France.

- K.G. Lim and Y.-N. Cheah (2003) Knowledge Sharing and Evaluation in Healthcare Enterprises using KM-Mail, *Medical Informatics Europe (MIE 2003)*, St. Malo, France.
- Y.-N. Cheah, F.A. Rashid and S.S.R. Abidi (2002) Tacit Knowledge in Healthcare: The Incorporation of Healthcare Scenarios in Clinical Problem-Based Learning, *Conference on Information Technology Research and Applications (CITRA* 2002), Kuala Lumpur, Malaysia.
- Z.I. Hashmi, S.S.R. Abidi, Y.-N. Cheah and S.Z.H. Zaidi (2002) Intelligent Agent-Based Knowledge Assistant for Enterprise-wide Healthcare Enterprise Knowledge Factory, *Conference on Information Technology Research and Applications (CITRA* 2002), Kuala Lumpur, Malaysia.
- 17. Z.I. Hashmi, S.S.R. Abidi and Y.-N. Cheah (2002) An Intelligent Agent Based Knowledge Broker for Enterprise-Wide Healthcare Knowledge Procurement, *The Fifteenth IEEE Symposium on Computer-Based Medical Systems (CBMS 2002)*, Maribor, Slovenia.
- Z.I. Hashmi, S.S.R. Abidi and Y.-N. Cheah (2002) Intelligent Healthcare Information Assistant: Towards Agent-Based Healthcare Knowledge Management, *The Seventeenth International Congress of the European Federation for Medical Informatics (MIE 2002)*, Budapest, Hungary. (Poster Paper)
- Y.-N. Cheah and S.S.R. Abidi (2001) Augmenting Knowledge-Based Medical Systems with Tacit Healthcare Expertise: Towards an Intelligent Tacit Knowledge Acquisition Info-Structure, *The Fourteenth IEEE Symposium on Computer-Based Medical Systems (CBMS 2001)*, Bethesda, Maryland.
- 20. S.S.R. Abidi and Y.-N. Cheah (2001) A Knowledge Creation Strategy to Enrich Enterprise Information Systems with Enterprise-Specific Tacit Knowledge, *International Conference on Enterprise Information Systems (ICEIS 2001)*, Setúbal, Portugal.
- 21. Y.-N. Cheah and S.S.R. Abidi (2001) Capturing Tacit Healthcare Knowledge via an Intelligent Info-Structure featuring Knowledge Standardization and Repair Mechanisms, *The Ninth Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON 2001)*, Pula, Croatia.
- 22. Y.-N. Cheah and S.S.R. Abidi (2001) The Role of Information Technology in the Explication and Crystallisation of Tacit Healthcare Knowledge, *The Sixth International Symposium on Healthcare Information Management Research (iSHIMR 2001)*, Halkidiki, Greece.
- 23. Y.-N. Cheah and S.S.R. Abidi (2001) A Knowledge Management Approach for Tacit Knowledge Explication and Crystallisation, *Knowledge Management International Conference and Exhibition (KMICE 2001)*, Langkawi, Malaysia.
- 24. S.S.R. Abidi and Y.-N. Cheah (2001) A Synergy of Knowledge Management and Knowledge Discovery Approaches towards Realising Knowledge-Driven Strategic Healthcare Services, *Knowledge Management International Conference and Exhibition (KMICE 2001)*, Langkawi, Malaysia.

- 25. Y.-N. Cheah and S.S.R. Abidi (2000) A Scenarios Mediated Approach for Tacit Knowledge Acquisition and Crystallisation: Towards Higher Return-On-Knowledge and Experience, *The Third International Conference on Practical Aspects of Knowledge Management (PAKM 2000)*, Basel, Switzerland.
- 26. Y.-N. Cheah and S.S.R. Abidi (2000) An Ontology-Mediated Scenario Composer for Knowledge Acquisition in Intelligent Systems, *IEEE Region Ten Conference (TENCON 2000)*, Kuala Lumpur, Malaysia.
- 27. Y.-N. Cheah and S.S.R. Abidi (2000) Health Expert's Tacit Knowledge Acquisition and Representation Using Specialised Healthcare Scenarios, *Medical Infobahn for Europe (MIE 2000)*, Hannover, Germany.
- 28. Y.-N. Cheah and S.S.R. Abidi (2000) Healthcare Knowledge Acquisition: An Ontology-Based Approach Using the Extended Markup Language (XML), *Medical Infobahn for Europe (MIE 2000)*, Hannover, Germany. (Poster Paper)
- 29. S.S.R. Abidi, M. Selvakumar, Y.-N. Cheah and A. Goh (2000) Providing Diverse Perspectives of Clinical Evidence: A Novel Approach to Augment Evidence Based Medicine Systems, *Medical Infobahn for Europe (MIE 2000)*, Hannover, Germany. (Poster Paper)
- 30. Y.-N. Cheah and S.S.R. Abidi (2000) A Strategy for Tacit Knowledge Acquisition and Representation: A Case for Scenarios, *The Third International Conference on the Practical Application of Knowledge Management (PAKeM 2000)*, Manchester, United Kingdom.
- 31. S.S.R. Abidi and Y.-N. Cheah (2000) A Convergence of Knowledge Management and Data Mining: Towards 'Knowledge-Driven' Strategic Services, *The Third International Conference on the Practical Application of Knowledge Management (PAKeM 2000)*, Manchester, United Kingdom.

32. Y.-N. Cheah and S.S.R. Abidi (2000) Ontology-Mediated Acquisition and Representation of Tacit Knowledge in the Healthcare Environment, *The Third International Conference on the Practical Application of Knowledge Management (PAKeM 2000)*, Manchester, United Kingdom. (Poster Paper)

- 33. Y.-N. Cheah and S.S.R. Abidi (1999) The Efficacy of Ontology-Based Knowledge Acquisition in Healthcare Enterprises, *International Medical. Imaging & Instrumentation Technology Conference & Exhibition (IMIIT '99)*, Kuala Lumpur, Malaysia.
- 34. Y.-N. Cheah and S.S.R. Abidi (1999) Healthcare Knowledge Management Through Building and Operationalising Healthcare Enterprise Memory. *The Fifteenth International Congress, Medical Informatics Europe (MIE* '99), Ljubljana, Slovenia.
- 35. Y.-N. Cheah and S.S.R. Abidi (1999) Evaluating the Efficacy of Knowledge Management and Organisational Memory Towards Healthcare Enterprise Modelling. *Workshop on Knowledge Management and Organizational Memories, Sixteenth International Joint Conference on Artificial Intelligence (IJCAI '99)*, Stockholm, Sweden.

- 36. Y.-N. Cheah and S.S.R. Abidi (1999) Tacit Knowledge Creation in a Knowledge Management Context, *The Fourteenth International Symposium on Computer and Information Sciences (ISCIS '99)*, Kusadasi, Turkey. (Poster Paper)
- 37. Y.-N. Cheah and S.S.R. Abidi (1999) Knowledge Management in the Healthcare Enterprise: A Case for Building and Operationalising a Healthcare Enterprise Memory, *The Fourteenth International Symposium on Computer and Information Sciences (ISCIS '99)*, Kusadasi, Turkey. (Poster Paper)
- 38. S. Sreedhar, M. Selvakumar, W.L. Lim and Y.-N. Cheah (1997) Towards a Tele-Healthcare Infostructure: Personalised Health Monitoring and 'Intelligent' Diagnostic Services, *Student Paper Competition, National Conference on Research and Development in Computer Science and its Applications (REDECS '97)*, Universiti Sains Malaysia. (Awarded Best Paper)

Invited Presentation

1. Y.-N. Cheah (2004)

Managing Tacit healthcare Knowledge Towards Higher Returns on Knowledge and Experience, Knowledge Management Conference for the Healthcare Sector: Delivering Better Health Informatics with Knowledge Management, Arkgroup Asia, Grand Hyatt Singapore, Singapore.

AWARDS

| Academic | |
|-------------|--|
| 2003 | Best Paper The Third International Conference on Information Technology in Asia (CITA 2003), Kuching, Sarawak. |
| 1999 – 2001 | National Science Fellowship Ministry of Science, Technology and Environment, Malaysia. |
| 1999 | Skim Biasiswa Khas (Special Scholarship Scheme) Universiti Sains Malaysia and Ministry of Science, Technology and Environment, Malaysia. |
| 1997 | Best Paper for Student Paper Contest National Conference on Research and Development in Computer Science and its Application (REDECS '97). Universiti Sains Malaysia. |
| 1994 - 1998 | Malaysian Tobacco Company Foundation Scholarship |
| 1993 | Student Excellence Award Sekolah Menengah Sultan Yussuf, Batu Gajah |
| Music | |
| 1990 | Encouragement Award winner Yamaha Electone Festival (Malaysian National Finals) |

Distinguished Award winner Yamaha Electone Festival (Malaysian National Finals)