

CURRICULUM VITAE

Anusuriya Devaraju

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Table of Contents	Page
Education	2
Professional Certification	2
Employment	3
Publications	4
Invited Talks, Presentations and Tutorial Sessions	9
Research and Development	10
Awards and Prizes	12
Committees and Associations	13
Teaching, Supervision, Administration	14

EDUCATION

Doctor of Natural Sciences (Dr. rer. nat) (PhD)

10 Nov 2008 – 19 April 2012

Institute for Geoinformatics, University of Muenster, Germany.

Thesis: Representing and Reasoning about Geographic Occurrences in the Sensor Web

First Supervisor: Prof. Dr. Werner Kuhn, Second Supervisor: Associate Prof. Dr. Chris S. Renschler

MSc. in System Design for Internet Applications

15 Sept 2003 – 17 Sept 2004, awarded on 8 Dec 2004.

School of Computing Science, Faculty of Science, Agriculture and Engineering,

University of Newcastle upon Tyne^a, Newcastle upon Tyne, UK.

Thesis: Mobile Location Based Service (an industry-based project of BT's Global Research and Development, Adastral Park, UK).

Supervisors: Prof. Dr. Santosh Shrivastava (University) and Simon Beddus (Industry)

BSc. in Geoinformatics

01 June 1998- 31 May 2002, awarded on 20 July 2002.

Faculty of Geoinformation Science and Engineering, University Technology Malaysia.

CGPA: 3.83/4.00, (First-class honors)

Thesis: The Development of Web-Based GIS System to Support Community Participation in Planning Decision Making

Supervisors: Zamri Ismail and Assoc. Prof. Mohd Safie bin Mohd

PROFESSIONAL CERTIFICATION

Certified Information Technology Professional, Malaysia Information Technology Professional Examination (MITPE), Ministry of Higher Education Malaysia, 2006.

(This examination is also known as Information Technology Engineers Examination (ITEE) which was established as a national examination administered by the Ministry of Economy, Trade and Industry Japan, since 1969)

^a The University changed its trading name to Newcastle University in 2006.

EMPLOYMENT

Title	Duration	Employer	Business Nature
Postdoctoral Fellow	3 March 2015 – Present	CSIRO Mineral Resources, Kensington, Australia.	Research Organization
Postdoctoral Fellow	19 Nov 2012 – 28 Feb 2015	Agrosphere Institute (IBG-3), Institute of Bio- and Geosciences, Forschungszentrum Jülich GmbH, Germany.	Research Organization
^b Senior Lecturer, Lecturer, Tutor	28 May 2002 – 31 October 2012	Faculty of Information & Communication Technology, Universiti Teknikal Malaysia Melaka (UTeM), Malaysia.	University

OTHER EMPLOYMENT (INTERNSHIP & WORK EXPERIENCE)

Visiting Researcher	1 April 2010 – 12 Sept 2010	IRTG Muenster-Buffalo Exchange Program, Department of Geography, State University of New York at Buffalo	University
Visiting Researcher	9 Nov 2009 – 23 Dec 2009	CSIRO Tasmanian ICT Centre, Tasmania, Australia.	Research Organization
Visiting Researcher	2 June 2008 – 14 July 2008, 18 Dec 2006 – 15 June 2007	British Telecommunications (BT) Multimedia Malaysia Sdn Bhd, Kuala Lumpur, Malaysia.	Research Centre
Research Intern	5 April 2004 – 29 Oct 2004	Distributed Computing Research Group, British Telecommunications (BT) Global Research and Development, Adastral Park, UK.	Research Centre
Internship	1 Oct 2001 – 31 Dec 2001	Center of Geographical Information and Analysis (CGIA), University Technology Malaysia.	University
Internship	2 April 2001 – 4 May 2001	Town Planning and Building Control Department, Malacca Municipal Council, Malaysia.	City Council

^b Study leave with pay (PhD): 10 Nov 2008 – 19 April 2012; Study leave (MSc): 15 Sept 2003 – 17 Sept 2004.

Journal Articles and Book Chapters

1. **Anusuriya Devaraju**, Jens Klump, Simon Cox, Victor Tey, Ryan Fraser (2017), Towards a Web-Enabled Geo-Sample Web: An Open Source Resource Registration and Management System for Connecting Geo-Samples to the Web, Proceedings of the International Conference for Free and Open Source Software for Geospatial (FOSS4G 2017), OSGeo Journal, vol. 17(1), 2017.
2. **Anusuriya Devaraju**, Jens Klump, Simon Cox, Pavel Golodoniuc, Representing and Publishing Physical Sample Descriptions, Computers & Geosciences, vol. 96, pp. 1-10, 2016, <http://dx.doi.org/10.1016/j.cageo.2016.07.018>.
3. **Anusuriya Devaraju**, Simon Jirka, Ralf Kunkel and Juergen Sorg, Q-SOS - An Sensor Observation Service for Accessing Quality Control Descriptions of Environmental Data, ISPRS Int. Journal of Geo-Information, vol.4, pp, 1346-1365, 2015, <http://dx.doi.org/10.3390/ijgi4031346>
4. **Anusuriya Devaraju**, Werner Kuhn, Chris S. Renschler, A Formal Model to Infer Geographic Events from Sensor Observations, International Journal of Geographical Information Science, vol. 29 (1), pp. 1-27, 2014, <http://dx.doi.org/10.1080/13658816.2014.933480>
5. **Anusuriya Devaraju** and Tomi Kauppinen, Sensors Tell More than They Sense: Modeling and Reasoning about Sensor Observations for Understanding Weather Events, Special Issue on Semantic Sensor Networks, International Journal of Sensors, Wireless Communications and Control, Bentham Science Publishers, vol. 2(1), pp. 14-26(13), ISSN: 2210-3279, 2012.
6. Simon Scheider, Carsten Kessler, Jens Ortmann, **Anusuriya Devaraju**, Johannes Trame, Tomi Kauppinen, Werner Kuhn, Semantic Referencing of Geosensor Data and volunteered Geographic Information. In Naveen Ashish and Amit Sheth (eds.): Geospatial Semantics and Semantic-Web: Foundations, Algorithms, Applications. Springer book series, Semantic Web and Beyond: Computing for Human Experience, vol. 12, pp.27-59, 2011.
7. **Anusuriya Devaraju**, Umawathy Techanamurthy, Zeratul Izzah Mohd. Yusoh, Mohd Hafiz Zakaria, E-learning for Disability: Creation, Assessment, and Implementation, INTI Journal - Special Issue on Teaching and Learning, INTI International University College, International Conference on Teaching and Learning (ICTL 2007), Negeri Sembilan, Malaysia, 2007.

Books and Technical Specifications

1. **Anusuriya Devaraju**, Representing and Reasoning about Geographic Occurrences in the Sensor Web, Dissertations in Geographic Information Science (GISDISS), vol. 7, AKA Verlag, August 2012, ISBN print: 978-3-89838-673-9.
2. **Anusuriya Devaraju**, Norazlin Mohamed, Muhammad Suhaizan Sulong, Wong Chin Chin, A Practical Approach to Web Application Development, Venton Publishing Sdn Bhd, ISBN: 9789833526918, August 2007.
3. **Anusuriya Devaraju**, Web Programming Laboratory Module, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, June 2006.

4. **Anusuriya Devaraju** and Safiza Suhana, BITM 2113: Web Application Development Laboratory Module, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, January 2005.

Edited Proceedings

Anusuriya Devaraju, Alejandro Llaves, Patrick Maué, and Carsten Kessler (eds.), Proceedings of the Workshop on Towards Digital Earth: Search, Discover and Share Geospatial Data at Future Internet Symposium, Berlin, vol. 640, CEUR-WS.org, ISSN: 1613-0073, September 2010.

Refereed Conference and Workshop Papers

1. **Anusuriya Devaraju** and Shlomo Berkovsky, A Hybrid Recommendation Approach for Open Research Datasets, The 26th ACM International Conference on Information and Knowledge Management (CIKM), November 6-10, 2017, Singapore (under review).
2. **Anusuriya Devaraju**, Jens Klump, Victor Tey, Ryan Fraser, Simon Cox, Lesley Wyborn (2017), A Digital Repository for Physical Samples: Concepts, Solutions and Management, 21st International Conference on Theory and Practice of Digital Libraries (TPDL 2017), September 18-21, 2017, Thessaloniki, Greece. (accepted).
3. Jens Klump, Lesley Wyborn, **Anusuriya Devaraju**, Warrick Brown, and Simon Cox (2017), Making Physical Objects Accessible in the Digital Era, in Open Repositories 2017, Queensland University of Technology, Brisbane, QLD, Australia.
4. **Anusuriya Devaraju**, Jens Klump, Victor Tey, Ryan Fraser and Pavel Golodoniuc, Web-enabled Physical Samples: Curating and Publishing Physical Samples in CSIRO, eResearch Australasia 2016, Melbourne, VIC, Australia.
5. Jens Klump, Lesley Wyborn, Irina Bastrakova, **Anusuriya Devaraju**, Simon Cox, and Pavel Golodoniuc, Implementing Sample Identification in Australia – The IGSN Pilot Project, SciDataCon 2016, CODATA, Denver.
6. **Anusuriya Devaraju**, Jens Klump, Victor Tey, Ryan Fraser, The Implementation of the International Geo Sample Number in CSIRO: Experiences and Future Outlook, Physical Samples and Digital Libraries Workshop, JCDL 2016 - ACM/IEEE Joint Conference on Digital Libraries, 22nd – 23rd June 2016, Newark, NJ.
7. **Anusuriya Devaraju**, Jens Klump and Pavel Golodoniuc, An Open Source Web Service for Registering and Managing Environmental Samples. In Venkatesh Raghavan and Kang Woo Nam (eds.): Proceedings of FOSS4G Seoul 2015, pp. 167-178, ISBN 979-11-956097-0-3.
8. **Anusuriya Devaraju** and Jens Klump, Capturing Data Provenance with A User-Driven Feedback Approach, The 21st International Congress on Modelling and Simulation (MODSIM2015), Queensland, 29th Nov – 4th Dec 2015.
9. **Anusuriya Devaraju**, Ralf Kunkel, Juergen Sorg, Heye Bogena and Harry Vereecken, A Common Quality Assessment Framework for Environmental Observation Data. In Proceedings of the 14th International Multidisciplinary Scientific GeoConference on Informatics, Geoinformatics and Remote Sensing (SGEM 2014), vol. 1, pp. 449-456, Bulgaria, ISBN: 978-619-7105-10-0, 17th -26th June 2014.
10. **Anusuriya Devaraju**, Ralf Kunkel, Juergen Sorg, Heye Bogena and Harry Vereecken, Enabling Quality Control of Sensor Web Observations. In Octavian Postolache Marten

van Sinderen, Falah Ali, César Benavente-Peces (eds): Proceedings of the 3rd International Conference on Sensor Networks (SENSORNETS 2014), Lisboa, SCITEPRESS, ISBN: 978-989-758-001-7, 7th – 9th January 2014 (full paper acceptance rate (10/74): 14%).

11. Tomi Kauppinen, **Anusuriya Devaraju**, Älyä havaintojen yhdistämiseen: Sensoridatat voidaan yhdistää älykkäästi ontologioiden avulla (sensor data integration using ontologies), Positio 1/2013, Maanmittauslaitos, Helsinki, 2013.
12. **Anusuriya Devaraju** and Tomi Kauppinen. Geo-Processes and Properties Observed by Sensors: Can We Relate Them?. In Katharina Henneböhl, Lúbia Vinhas, Edzer Pebesma, and Gilberto Câmara (eds): GIScience for Environmental Change - Symposium Proceedings, Campos do Jordão, São Paulo, Brazil, vol. 40, IfGIprints, pp. 25–30, 2010.
13. **Anusuriya Devaraju** and Werner Kuhn, A Process-Centric Ontological Approach for Integrating Geo-Sensor Data. In Antony Galton and Riichiro Mizoguchi (eds): Proceedings of the Sixth International Conference, FOIS 2010, Toronto, Canada, 11th-14th May 2010, Frontiers in Artificial Intelligence and Applications, vol. 209, pp.199–212, IOS Press (paper acceptance rate (28/71) : 39%).
14. **Anusuriya Devaraju**, Holger Neuhaus, Krzysztof Janowicz, and Michael Compton, Combining Process and Sensor Ontologies to Support Geo-Sensor Data Retrieval, Sixth International Conference on Geographic Information Science (GIScience 2010), Zurich, 14th – 17th September 2010.
15. **Anusuriya Devaraju**. Towards Process-Based Ontology for Representing Dynamic Geospatial Phenomena, COSIT 2009 Doctoral Colloquium, Aber Wrac'h, France, 21st - 25th September 2009. *Best Student Paper Prize Awarded by Ordnance Survey UK.
16. **Anusuriya Devaraju** and Simon Hoh, Ontology-based Context Modeling for User-Centered Context-Aware Services Platform, The IEEE 3rd International Symposium on Information Technology - Cognitive Informatics: Bridging Natural and Artificial Knowledge, Kuala Lumpur, Malaysia, 26th -29th August 2008.
17. Zeratul Izzah Mohd. Yusoh, **Anusuriya Devaraju**, Mohd Hafiz Zakaria, and Umawathy Techanamurthy, An Overview of Learning Contents in MyLexics - An Assistive Multimedia Courseware for Dyslexics, 13th International Conference in Education, 20th -23rd May 2008, Brunei Darul Salam.
18. Simon Hoh, **Anusuriya Devaraju** and Chin Chin Wong, A Context Aware Framework for User Centered Services, 21st International Symposium Human Factors in Telecommunication, 17th -20th March 2008.
19. **Anusuriya Devaraju**, Umawathy Techanamurthy, Zeratul Izzah Mohd. Yusoh, and Mohd Hafiz Zakaria, E-learning for Disability: Creation, Assessment, and Implementation, International Conference on Teaching and Learning, Putrajaya, Malaysia, 15th -16th November 2007.
20. Zurina Saaya, **Anusuriya Devaraju**, and Nuridawati Mustafa, The Implementation of Questionnaires Design Principles via Online Questionnaire Builder, 1st International Malaysian Educational Technology Convention, Johor Bahru, Malaysia, 2nd-5th November 2007.
21. **Anusuriya Devaraju**, Nanna Suryana Herman, and Shahrin Sahib, Building of the Enabled Web-Based GIS Participation System: A Tool to Enhance Community Participation in City Development Plan, The 2nd International Conference on Advances in Information Technology (IAIT2007), Thailand, 1st -2nd November 2007.

22. **Anusuriya Devaraju**, Zeratul Izzah Mohd. Yusoh, Mohd Hafiz Zakaria, and Umawathy Techanamurthy, MyLexic:An Assistive Multimedia Courseware for Teaching and Reinforcing Basic Reading Skills among Dyslexics, E-Learn 2007 -World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education, Quebec City, Canada, 15th -19th October 2007.
23. **Anusuriya Devaraju**, Simon Hoh, and Michael Hartley, A Context Gathering Framework for Context-Aware Mobile Solutions, The ACM International Conference on Mobile Technology, Applications and Systems, Singapore, 10th – 12th September 2007.
24. Zurina Saaya, Nuridawati Mustafa, and **Anusuriya Devaraju**, The Development of Practical Guidelines for Designing Online Questionnaires, National Conference on Software Engineering & Computer Systems 2007 (NaCSES'07), Kuantan, Pahang, Malaysia, 20th – 21st August 2007.
25. **Anusuriya Devaraju** and Sucilia Devi Muniandy, Exploration of the Solar System Using Multimedia Technology, International Conference on Science and Technology (Applications in Industry and Education), Pulau Pinang, Malaysia, 8th -9th December 2006.
26. Mohd Hafiz Zakaria, Umawathy Techanamurthy, and **Anusuriya Devaraju**, Development of a Multimedia Courseware as a Teaching Aid for Children with Dyslexia, Regional Seminar and Exhibition on Educational Research 2006, Kuala Lumpur, Malaysia, 27th -30th July 2006.
27. **Anusuriya Devaraju** and Simon Beddus, Building Location-based Service with Java Technologies, The Forth Conference on Information Technology in Asia (CITA), Sarawak, Malaysia, 12th – 15th December 2005.
28. **Anusuriya Devaraju** and Simon Beddus, Positioning Simulator for Location-based Service, The Seventh IFIP International Conference on Mobile and Wireless Communications Networks, Morocco, 19th – 21st September 2005.

Posters and Extended Abstracts

1. **Anusuriya Devaraju** and Shlomo Berkovsky, Do Users Matter? The Contribution of User-Driven Feature Weights to Open Dataset Recommendations, 11th ACM Conference on Recommender Systems, Como, Italy, 27th-31st August 2017. (accepted)
2. Pavel Golodoniuc, **Anusuriya Devaraju**, and Jens Klump, Case study: Curation and publication of physical samples using persistent identifiers, Geophysical Research Abstracts, Vol. 19, EGU2017-11645, EGU General Assembly 2017.
3. **Anusuriya Devaraju**, Gaya Jayasinghe, Jens Klump, and Dominic Hogan, Enabling Open Research Data Discovery through a Recommender System, Geophysical Research Abstracts, Vol. 19, EGU2017-5811, EGU General Assembly 2017.
4. Lesley Wyborn, Jens Klump, Irina Bastrakova, **Anusuriya Devaraju**, Brent McInnes, Simon Cox, Linda Karssies, Julia Martin, Shawn Ross, John Morrissey, and Ryan Fraser, Building an Internet of Samples: The Australian Contribution, Geophysical Research Abstracts, vol. 19, EGU2017-11497, EGU General Assembly 2017.
5. **Anusuriya Devaraju**, A Recommender System for Research Data Discovery, Convergence 2017, 6-8 March Melbourne.

6. Adam Brown, Jess Robertson, Jens Klump, Carsten Friedrich, Ryan Fraser, **Anusuriya Devaraju**, Geoff Squire, Wonambi: An Integrated Software Development Sandbox, eResearch Australia 2016, Melbourne, VIC, Australia.
7. **Anusuriya Devaraju**, Robert Davy and Dominic Hogan, Data You May Like: A Recommender System for Research Data Discovery, IN030: New Approaches to Data Discovery across Geoscience Domains, AGU Fall Meeting 2016, San Francisco, USA.
8. **Anusuriya Devaraju**, Jens F Klump, Victor Tey, Ryan Fraser, Nathan Reid, Adam Brown and Pavel Golodoniuc, From Field to the Web: Management and Publication of Geoscience Samples in CSIRO Mineral Resources, A007: Care and feeding of physical samples and their metadata: what happens next?, AGU Fall Meeting 2016, San Francisco, USA (invited author).
9. Lesley A Wyborn, Kerstin Lehnert, Jens F Klump, Robert A Arko, Simon J D Cox, **Anusuriya Devaraju**, Kirsten Elger, Fiona Murphy and Dirk Fleischer, What is Next? Linking all Samples of Planet Earth, PA007: Care and feeding of physical samples and their metadata: what happens next?, AGU Fall Meeting 2016, San Francisco, USA
10. **Anusuriya Devaraju**, Dominic Hogan, and Ryan Fraser, A Recommender System to Support the Discovery of Research Datasets, International Workshop on Science Gateways, eResearch Australasia 2016, Melbourne, VIC, Australia.
11. Pavel Golodoniuc, **Anusuriya Devaraju**, and Jens Klump, The Implementation of IGSN in the Context of Australian Mineral Exploration, Geophysical Research Abstracts, vol. 18, pp. EGU2016-1562, Copernicus Society, Vienna, Austria.
12. **Anusuriya Devaraju**, Jens Klump, Victor Tey, and Ryan Fraser, Physical Samples and Persistent Identifiers: The Implementation of the International Geo Sample Number (IGSN) Registration Service in CSIRO, Australia, Geophysical Research Abstracts, vol. 18, pp. EGU2016-5341, Copernicus Society, Vienna, Austria.
13. Pavel Golodoniuc, Lesley Wyborn, Jens Klump, **Anusuriya Devaraju**, Ryan Fraser, Irina Bastrakova, Kerstin Lehnert, Brent McInnes, and Adam Brown, Implementing the IGSN System in Australia, eResearch Australasia 2015, 19-23 October 2015, Brisbane, Australia.
14. Pavel Golodoniuc, Jens Klump, Lesly Wyborn, **Anusuriya Devaraju**, Ryan Fraser, AGU 2015: Sample Identification at Scale – Implementing IGSN in a Research Agency, AGU 2015: Data Ought Not Be in the Darkness: They Should Be Open, Accessible, Transparent, and Reproducible II Poster, San Francisco, 14-18 Dec 2015.
15. **Anusuriya Devaraju** and Jens Klump, Using Feedback from Data Consumers to Capture Quality Information on Environmental Research Data, AGU 2015: Session IN006: Approaches to Improved Collection and Dissemination of Earth Science Data Quality Information, San Francisco, 14th-18th Dec 2015.
16. Ralf Kunkel, Jurgen Sorg, **Anusuriya Devaraju**, R. Gasche, O. Kolditz, F. Neidl, K. Rink, V. Stender, TEODOOR – a Spatial Data Infrastructure for terrestrial observation data, TR32 2nd Data Management Workshop, University of Cologne, 28th-29th November 2014.
17. **Anusuriya Devaraju**, Ralf Kunkel and Juergen Sorg, A Provenance-Aware Quality Control Framework for Assessing and Publishing Terrestrial Environmental Data, TR32 2nd Data Management Workshop, University of Cologne, 28th-29th November 2014
18. **Anusuriya Devaraju**, Ralf Kunkel, Juergen Sorg, Heye Bogen and Harry Vereecken, A Generic Data Framework for Processing and Assessing Heterogeneous Observation Data, S15: Management and integration of environmental observation data, TERENO

International Conference 2014, Rheinische Friedrich-Wilhelms-Universität Bonn, Germany, 29th September - 2nd October 2014.

19. **Anusuriya Devaraju**, Ralf Kunkel, Simon Jirka, Managing and Integrating Open Environmental Data - Technological Requirements and Challenges, Geophysical Research Abstracts, vol. 16, EGU2014-16275, EGU General Assembly 2014, Vienna, 27th April - 2nd May 2014.
20. **Anusuriya Devaraju**, An Ontological Approach to Representing and Reasoning about Events in the Sensor Web, Geophysical Research Abstracts, vol. 15, EGU2013-13765-1, EGU General Assembly 2013, Vienna, 7th - 12th April 2013.
21. Elisabeth Krueger, Jan Friesen, Andreas Kallioras, Heye Bogena, **Anusuriya Devaraju**, Harry Vereecken, Georg Teutsch, TERENO-MED: Terrestrial Environmental Observatories in the Mediterranean Region, Geophysical Research Abstracts, EGU General Assembly 2013, Vienna, p.14157, 7th - 12th April 2013.
22. **Anusuriya Devaraju**, Ralf Kunkel, and Heye Bogena, Incorporating Quality Control Information in the Sensor Web, Geophysical Research Abstracts, vol. 15, EGU2013-13766, EGU General Assembly 2013, Vienna, 7th-12th April 2013.
23. Simon Scheider, **Anusuriya Devaraju**, Krzysztof Janowicz, Patrick Maué, Sven Schade, Carsten Keßler, Jens Ortmann, Mohamed Bishr, Tonio Fincke, Tobias Weigel and Werner Kuhn, Grounding Geographic Information. In Proceedings of the 12th AGILE International Conference on Geographic Information Science, Hannover, Germany, 2009.
24. **Anusuriya Devaraju**, Haniza Nahar, Sivasakthi Marimuthu, MEDICT: A Malay<-> English Bilingual Dictionary For Java Mobile Phones, IADIS International Conference Wireless Applications and Computing 2007, Lisbon, Portugal, 6th - 8th July 2007.

INVITED TALKS, PRESENTATIONS AND TUTORIAL SESSIONS

1. Capturing Forward Provenance with a User-Driven Feedback Approach, CSIRO Research Data Service (RDS) summer series, 20th November 2015.
2. Recommender systems for software libraries, Lightning talk series organized by CSIRO Land & Water, 10th August 2015.
3. Data Quality Meets Data Provenance, Australian Research Data Provenance Interest Group Meeting, 23rd June 2015.
4. Data Quality Meets Data Provenance: A Case Study on TERENO Observation Data, MRF Discovery Seminar Series, 2nd April 2015.
5. Publishing Physical Samples Records on the Web, Computational and Simulation Sciences and eResearch Annual Conference and Workshops, 3rd March 2016, Melbourne, Australia.
6. Open environmental data integration and interoperability, Applied Geoinformatics for Society and Environment (AGSE 2014), 5th - 7th November 2014, Stuttgart University of Applied Sciences, Germany.
7. Incorporating Quality Control Information into the Sensor Web, Spin the Sensor Web: 52N Sensor Web Workshop, 21st November 2013, Institute for Geoinformatics, Muenster.

8. Geographic Occurrences in the Sensor Web, Institute of Advanced Technology UPM Serdang, 22nd June 2012.
9. Environmental Data Discovery, Access and Integration, Graduate level course on Integrated Environmental Management, University at Buffalo, 7th and 9th September 2010.
10. Web Application Development with PHP & MySQL, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, 20th -22nd May 2008 (series 1), 17th -19th May 2005 (series 2).
11. An Introduction to Arc Internet Map Server, GIS Short Course on Spatial Data Management organized by Center for Geographic Information and Analysis, University Technology Malaysia for Forestry Department of Peninsular Malaysia, 25th - 28th November 2002.
12. A Web-based GIS to Enhance Public Participation in Local Policy-making, Workshop on GIS for Land-related Agencies, Center for Geographic Information and Analysis of University Technology Malaysia with cooperation of Ministry of Land and Cooperative Development of Malaysia, Johor, Malaysia, 25th -27th March 2002.

RESEARCH AND DEVELOPMENT

Projects/Collaborations

1. Smart linking and discovery of geoscience research assets, CSIRO Vacation Scholarship Program (starting Oct 2017)
2. Collaborator, Research Graph open collaborative project (June 2016 – Present).
3. CSIRO eResearch Collaboration Project, A recommender system to support the discovery of open research datasets (ERRFP-368) (Jan 2016 – Present)
4. Subject Matter Expert, Semantic Enablement of CSIRO Data, CSIRO Data Management Capability Enhancement Program (August 2016 – November 2016)
5. Collaborator, Minerals Data Services – IGSN, a Research Data Services (RDS) project funded by the Department of Education as part of their Education Investment Fund (EIF) Super Science Initiative (August 2016 – June 2017)
6. Terrestrial Environmental Observatories (TERENO), November 2012- Feb 2015.
7. Terrestrial Environmental Observatories in the Mediterranean region (TERENO-MED), November 2012 – July 2014.
8. Context Aware Service Platform for User Centered Services, Malaysian Research Centre, British Telecommunications (BT) Multimedia Malaysia Sdn Bhd, December 2006 - June 2007.

Successful research grant applications

(*Short term grants funded by the Universiti Teknikal Malaysia Melaka)

1. Co-Researcher, The Development of Mobile-based Family Health Encyclopedia, 1st August 2008 – 31st July 2009.*

2. Co-Researcher, The Development of University E-Recruiting Platform to Support Automated Recruiting Process, 1st October 2007 – 30th September 2008.*
3. Principal Researcher, The Development of Context Aware Ubiquitous Learning Service for Campus Environment, 1st October 2007- 30th September 2008.*
4. Principal Researcher, E-learning for Disability: An Assistive Multimedia Courseware for Dyslexics, 2007-2008. 1st January – 30th September 2008.*
5. Co-Researcher, Online Questionnaire Builder and Analyzer, University Research Support Grant, 1st September 2007- 31st August 2008.*
6. Co-Researcher, The Development of Multimedia Pre-departure Guide for Training in Japan, funded by Japan International Cooperation Agency Malaysia, 2004.

Major Development

1. A research data recommendation model and service for the CSIRO Data Access Portal (DAP).
2. Designed and implemented informatics solutions to register, manage and discover geoscience physical samples, e.g., a standard metadata schema for describing physical samples, a sample metadata store, and an early version of the CSIRO-IGSN registration service.
3. Python-WPS wrapper for Proxifier (Oznome hack event).
4. INSPECT data quality flagging tool for TERENO observation data. Sensors, their descriptions and data values are retrieved via a QC-enabled Sensor Observation Service (QC-SOS). QC-SOS is a profile of the SOS (v1.0) and implemented based on 52°North SOS 3.1.0. The service delivers observational values with relevant data quality control descriptions. Data can be updated with flagging information directly with hibernate queries (online mode) or using a Web Processing Service (WPS) (offline mode).
5. Sensing Geographic Occurrences Ontology (SEGO): A formal model representing the relations between geographic occurrences and properties observed by sensors. The model is exploited with a rule-based mechanism to infer information about events from in-situ observation data. Inferred events and their sensing details are accessible via online timeline applications.
6. Context Gathering and Querying (2007) - These are components of the British Telecommunications (BT)'s Context-Aware Service Platform (CASP). The aim of CASP is to assist service providers to build and deploy services based on context such as user profile, location, time, and environment. The context-gathering component supports a technology-independent, high-level software application-programming interface (API) that provides a mechanism for dealing with the heterogeneity of sensors providing raw contextual data. The context-querying component allows services to request and receive inferred knowledge from the platform.
7. The Development of a Positioning Simulator for Location-based Services Testing (2004) - The simulator supports BT's launch of User Location Service on ERICA platform by allowing testing of the platform components. The simulator enables third party providers to easily implement an end-to-end location-based solution within their enterprise. An online site was also developed to easily manage the simulated data.
8. GISPSS - A Web-based GIS system to enhance community participation in Melaka Tengah city development plan

Research Visit and Collaboration

1. Visiting Researcher, IRTG Muenster-Buffalo Exchange Program, Department of Geography, State University of New York at Buffalo, 1st April - 12th September 2010.
2. Visiting Researcher, Semantic Framework Hydrological Sensor Webs (SFHSW), CSIRO Tasmanian ICT Centre, Tasmania, 9th November – 23rd December 2009.
3. Visiting Researcher (Industrial Attachment), British Telecommunications (BT) Multimedia Malaysia Sdn Bhd, 18th December 2006- 15th Jun 2007, 1st Jun – 14th July 2008.
4. Visiting Researcher (Industrial Attachment), Memorandum of Understanding (MoU) between Universiti Teknikal Malaysia Melaka and Federal Territory Dyslexia Association of Malaysia, 12th August 2008.

AWARDS AND PRIZES

Academic Awards and Scholarships

1. PhD Scholarship (Nov 2008 – Feb 2012), International Research Training Group (IRTG) on Semantic Integration of Geospatial Information, funded by the German Research Foundation (DFG), project no. GRK 1498.
2. Arjuna Technologies Prize for Academic Excellence 2004, School of Computing Science, University of Newcastle upon Tyne, UK.
3. Academic Prize Winner (2002), Faculty of Geoinformation Science and Engineering, University Technology Malaysia.
4. Gold Medalist, The 32nd Convocation of University Technology Malaysia, 2002.
5. Best Undergraduate Student for the year 2001/2002, Hindu Students Association of University Technology Malaysia.
6. Dean's List (8 semesters, 1998 - 2002), Faculty of Geoinformation Science and Engineering, University Technology Malaysia.

Research & Development Awards

1. Josh Vote, Anusuriya Devaraju and Jess Robertson formed a team for the CSIRO's OzNome hack event. The resulting demonstrator "Proxifier" was awarded with a non-cash award.
2. Silver Medal, E-learning for Disability: An Assistive Multimedia Courseware for Dyslexics, UTeM Exhibition 2008 (in conjunction with Malacca Education Carnival), Innovation Category, Melaka International Trade Centre, 27th -30th March 2008.
3. Gold Medal, MyLexic: An Assistive Multimedia Courseware for Teaching and Reinforcing Basic Skills in Reading Malay Language among Dyslexics, The 18th International Invention, Innovation and Technology Exhibition (ITEX07), Kuala Lumpur Convention Centre, 18th -20th May 2007.
4. Silver Medal, E-learning for Disability: An Assistive Multimedia Courseware for Dyslexics, Teaching Methods and Materials Category, The 35th International

Exhibition of Inventions, New Techniques and Products of Geneva, 18th -22nd April 2007.

Publication Awards

Anusuriya Devaraju, Best Student Paper Prize Awarded by Ordnance Survey, Towards Process-Based Ontology for Representing Dynamic Geospatial Phenomena, COSIT 2009 Doctoral Colloquium, Aber Wrac'h, France, 21st -25th September 2009.

Training & Travel Awards

1. RECODE Workshop WP2: Perspectives in understanding open access to research data – infrastructure and technology challenges, 14th January 2014, Geneva.
2. The Policy RECommendations for Open Access to Research Data in Europe (RECODE) Workshop WP1: Stakeholder values & ecosystems, 4th September 2013, University of Sheffield.
3. The Training Program on Instructors for Software Design & Development Engineer Examination in Asian Countries, The Association for Overseas Technical Scholarship (AOTS) Kansai Kenshu Center, Osaka, Japan, 9th January – 5th February 2008.
4. The Training Program on Instructors of Fundamental Information Technology Engineers Examination for Malaysia, organized by the Association for Overseas Technical Scholarship (AOTS), and implemented by Multimedia Technology Enhancement Operations Sdn Bhd (METEOR), 26th November – 14th December 2007.

Service Awards

Universiti Teknikal Malaysia Melaka (UTeM) Quality Award for Excellence Service Year 2007.

COMMITTEES AND ASSOCIATIONS

Program Committee Member/Organizer

1. Member of the Program Committee, Linking Environmental Data and Samples, 29 May - 2 June 2017, Canberra, Australia.
2. Organizer, CSIRO Mineral Resources Postdoc Forum 2017, 9th March 2017, Melbourne.
3. Member of the Program Committee, CSIRO Postdoctoral Conference (Convergence 2017), 6-8 March 2017, Melbourne.
4. Session Co-Convener, IN035-02. Reproducible research in geosciences with emphasis on provenance of information as an essential component, AGU Fall Meeting 2016, San Francisco.
5. Member of the Program Committee, FOSS4G 2016 Scientific Track, 24th - 26th August 2016, Germany.

6. Associate editor, Pacific Asia Conference on Information Systems (PACIS 2016) - Context-Aware Geographic Information Systems Track.
7. Member of the Program Committee, 5th World Congress on Information and Communication Technologies (WICT 2015), 7th-9th December 2015, Morocco.
8. Member of the Program Committee, 15th International Conference on Intelligent Systems Design and Applications (ISDA 2015), 14th-16th December 2015, Morocco.
9. Member of the Program Committee, FOSS4G 2014 Academic Track, 8th – 13th September 2014, Oregon USA.
10. Organizer, MOEOD 2014, Special Session on Management of Open Environmental Observation Data, The 3rd International Conference on Sensor Networks (SENSORNETS 2014), 8th January 2014, Lisboa.
11. Member of the Program Committee, International Conference on Intelligent Systems Design and Applications (ISDA 2013), 8th-10th December 2013, UPM Malaysia.
12. Member of the Program Committee, FOSS4G 2013 Academic Track, 17th - 21st September 2013, Nottingham UK.
13. Member of the Program Committee, International Conference on Intelligent Systems Design and Applications (ISDA 2012), 27th - 29th November 2012, Kochi, India.
14. Member of the Program Committee, Eighth International Conference on Next Generation Web Services Practices (NWeSP 2012), 21st - 23rd November, 2012, São Carlos, Brazil.
15. Member of the Program Committee, AGSE 2012: Geoinformation - Catalyst for planning, development and good governance, 16th - 20th July, 2012, Universiti Teknologi Malaysia, Johor Bahru.
16. Member of the Program Committee, 1st International Conference on Mobile Learning, Application & Services, UTeM, 18th - 20th September 2012.
17. Member of the Program Committee, A Workshop on Linked Science, ISWC 2011, Bonn, Germany, 24th October 2011.
18. Organizer of the Workshop at FIS 2010- Towards Digital Earth: Search, Discover and Share Geospatial Data, Berlin, Germany, 20th September 2010.
19. Organizer of the GI Science 2010 Doctoral Colloquium, Zurich, Switzerland, 18th September 2010.
20. Member of the Program Committee, International Conference on Teaching and Learning (ICTL), Sarawak, Malaysia, 16th-18th November 2009.
21. Organizer of the International Conference on Engineering & ICT (ICEI2007), Melaka, Malaysia, 27th – 28th November 2007.
22. Organizer of the Seminar on Wireless, Security and Multimedia Networking- Issues and Challenges in Propelling Advance Manufacturing Technology, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, 28th July 2007.
23. Organizer of the Seminar on Information and Communication Technology – Series 1, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, 25th January 2003.

24. Organizer of the GIS Seminar Year 2001, Center for Geographic Information and Analysis, University Technology Malaysia, Kuala Lumpur, Malaysia, 22nd November 2001.

Ad-Hoc Journal Reviewer

Semantic Web – Interoperability, Usability, Applicability (SWJ) Journal, Transactions in GIS, ISPRS Journal of Photogrammetry and Remote Sensing, ISPRS International Journal of Geo-Information, IEEE Geoscience and Remote Sensing Letters, MDPI Sensors, JOSIS, Bulletin of the American Meteorological Society, International Journal of Cartography, Journal of Applied Ontology....

Associations

1. Member, OSGEO Malaysia local chapter
2. Dyslexia Association of Malaysia

TEACHING, SUPERVISION, ADMINISTRATION

Courses Taught

Faculty of Information & Communication Technology, University Teknikal Malaysia Melaka, Malaysia.

Semester/Year	Course	Type
1/2012	DITS 2213 Operating System	Lecture & Lab
2/2007-2008	BITS 2513 Internet Technology	Lecture & Lab
2/2007-2008	BITS 1213 Operating System	Lecture
1/2005-2006 1/2006-2007 1/2007-2008	BITM 2113 Web Applications Development	Lecture & Lab
2/2004-2005	DITM 2123 Web Programming	Lecture & Lab
1/2002-2003	BITM 2313 Human Computer Interactive	Lab

Institute for Geoinformatics, University of Muenster, Germany.

Semester/Year	Course	Type
Winter 2010	Geospatial Semantics	Lecture & Lab

Supervision

Supervision of Bachelor Theses (University Teknikal Malaysia Melaka)

1. Norazuan Che Nasen, Web-based Laboratory Booking System with Image Visualization Support, 2008.
2. Namasivayam Gunesparan, The Development of Mobile-based Notification System for Campus Environment, 2008.
3. Nor Hasliza Abdul Hamid, M-Learning for Healthcare – The Development of Mobile Learning System for Pregnancy Support, 2008.
4. Koay Min Huey, Enhancing Malay-English Bidirectional Mobile Dictionary, 2008.

5. Shafful Shazwan Sahar, The Development of E-Recruiting Software to Support Automated Recruiting Process, 2008.
6. Balkis Mohamed Rosli, Scaffolding Knowledge Integration through Developing Interactive Multimedia Courseware for Dyslexics, 2008.
7. Sathya Manoharan, The Development of Games-based Learning System for Dyslexic Children, 2008.
8. Johana Hikmah Jamil, The Development of Science Subject Courseware for High Schools, 2008.
9. Mohd Zulhafti Ab Aziz, Enhancement of Departmental Website Using Web Usability Guidelines, 2007.
10. Ronny Wong Peng Song, eBSS: Electronic Book Selling Platform, 2007.
11. Catherine Foo Wei Li, The Development of Malay-English Dictionary for Java Mobile Phones, 2007.
12. Nor Fa'alina Abu Hassan, An Interactive Bilingual Children's Picture Dictionary Courseware, 2007.
13. Siti Ros Ernie Mohd Yusoff, The Development of GIS Based Tourism Information System, 2007.
14. Sivasakthi Marimuthu, Malay-English Bilingual Mobile Dictionary, 2006.
15. Sucilia Devi Muniandy, The Development of Multimedia Courseware for Solar System, 2006.
16. Umawathy Technamurthy, X-Lexia: A Multimedia Courseware for Dyslexic Children using Picture Thinking and Multi-sensory Approach, 2006.
17. NurAfni Abu Hasan, The Development of Public Transport Kiosk System for Historic City of Malacca, 2006.
18. Chew Choon Leong, Online Questionnaire Builder, 2006.
19. Mohammad Fairuz Rosli, The Development of the Dam Haji Traditional Game Using Java, 2006.
20. Ooi Siao Ling, 2D Animation: The Process of Green House Effect, 2006.
21. Lau Lay Teng, Interactive Mapping with SVG and PHP, 2005.
22. Mohd Ismail Mohd Haniff, Web-based GIS for Tourism, 2005.
23. Mohammad Firdaus Bin Harun, GIS based Kiosk for Shopping Mall, 2005.
24. Khairul Azmi Samiri, Agriculture Consultation Online System, 2005.
25. Leon Wilfred, GIS for Endangered Hornbill Species in Sarawak, 2005.
26. Tan Sieh Kee, eSav : Online Second-hand Book Auction Web System, 2005.

Supervision of Diploma Final Year Projects (University Teknikal Malaysia Melaka)

1. Shafful Shazwan Sahar, The Development of E-Greeting Online System, 2006.
2. Norhainiza Mat Husin, An Online System to Support University Asset Management and Development, 2005.

Application Development

1. Alexander Parker, Smart linking and discovery of geoscience research assets, CSIRO Vacation Scholarship Program (starting Oct 2017)
2. Christoph Beekmans, Sensor Simulator for Simulating In-Situ Sensors, University of Muenster, 2011 - A Java-based sensor simulator has been developed to serve as an alternative for actual geo-sensors. The simulator is modeled after the Open Geospatial Consortium's Sensor Observation Service data model.

Service to the University

1. Member of Industrial Training committee, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, 2007-2008.
2. Member of ISO9000 - Quality Management committee, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, 2005-2008.
3. Member of Scientific Publications Committee, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, 2006-2008.

REFEREES

Dr Jens Klump
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