

CURRICULUM VITAE

ADE AZURAT

Faculty of Computer Science

University of Indonesia

Depok, Indonesia

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EDUCATION

- 2005- ... **Phd Student,**
Faculty of Computer Science, University of Indonesia, Depok, Indonesia
- Project subject: Towards Modular and Compositional Verification
 - Promotor: Prof. Belawati Wijaya, PhD.
- 1999-2004 **AiO (Assistant in Opleiding)**
University of Utrecht, Netherland
- Project subject: An Architecture for Modular Embedding
 - Supervisor: Prod. Dr. S.D. Swiestra and Dr. Wishnu Prasetya
- 1995-1999 **Bachelor of Science in Computer Science,**
Faculty of Computer Science University of Indonesia, Depok, Indonesia
- Thesis subject: Information Retrieval using probabilistic inference network
 - GPA: 3.51,
 - Graduated Cum Laude

PROJECT WORK

- 2000-2001 **Operational semantic of UNITY, Utrecht, AiO**
University of Utrecht, Netherland
- Formalize the operational semantic of UNITY logic in hol Theorem prover
 - Define the operational semantic of UNITY
 - Verify and prove the soundness of the formalism
 - Studying formalization in HOL Theorem Prover
- 2002-2003 **xMech, Utrecht, AiO**
University of Utrecht, Netherland
- Develop a program verification tool in ML
 - Define a programming logic for imperative programmig
 - Define a programming logic for distributed programmig
 - Provide basic interface to theorem prover HOL
- 2003-2004 **AGMech, Utrecht, AiO**
University of Utrecht, Netherland
- Develop a compositional method to implement programing logic
 - Studying Parser Combinator and Attribute Grammar
 - Develop a compositional programming logic using algebra
- 2004-2005 **Developing Technology for Specifying and Generating Critical Data Processing Program, Menristek NKRI, RUTI**
Fasilkom UI, Universitas Indonesia
- develop a program verification for database application
 - supervising several students final project
 - verification of SET case study using LinguHOL

- 2005 **Verification and Visualization of Component Software, Dikti, Hibah-B**
Fasilkom UI, Universitas Indonesia
- develop a program verification for component software architecture – Javabeen
 - design the programming logic framework for component software
 - formalization of programming logic framework for component software in HOL
 - supervising several students final project
 - formal understanding of componetn software dependency

ACHIEVEMENTS AND SCHOOLS

- 1999 IPA Falldays 1999 on Component-based Software Technology, November 8-12 1999, Dordrecht, The Netherland
- 2000 Scholarship, EEF Foundations school in Deduction and Theorem Proving
Heriot-Watt University, Edinburgh, 6-16 April 2000, dollar value: USD 500
- Scholarship, The LINEAR International Summer School (Linear Logic and Applications)
August 30 to September 7, 2000, Azores, Portugal, USD 1000
- Scholarship, IPA Springdays 2000 on UML, April 26-28 2000, Eindhoven, The Netherland
- Scholarship, IPA Falldays 2000 on Applied Algorithm Design, November 20-24 2000, Millingen aan de Rijn, The Netherland
- 2001 NATO Advanced Study Institute on Proof and System-Reliability,
Martoberdorf, Germany, 24 July- 5 august 2001
- IPA Spring 2001 on Security, April 18 to 20, Heeze, The Netherland
- IPA Basic Course on Software Technology 2001, May 28 - June 1 2001, Utrecht, The Netherland
- 2005 Achievement, Winner of Research and Development Category APICTA Indonesia 2005
(as part of RUTI-Agi team).

SOFTWARE PRODUCT

- 2002,2004 **Library !Unity & compositional theory di HOL,**
Join work with Wishnu Prasetya, University of Utrecht, Netherland
- <http://www.cs.uu.nl/~wishnu/research/projects/unity>
- 2003 **XMech- Verification tool**
Join Work with Wishnu Prasetya, University of Utrecht, Netherland
- <http://www.cs.uu.nl/~wishnu/research/projects/xMECH/>
- 2004-2005 **LinguSQL**
Join work in RUTI-Agi team, Faculty of Computer Science, University of Indonesia
- <http://www.cs.ui.ac.id/kuliah/riset/ruti/AGi>

INTERESTS

- Formalization
- Higher Order Theorem Prover
- Component Software
- Program verification
- Programming Logic
- Formal method

PUBLICATIONS

<i>Year</i>	<i>Publication</i>
2000	Ade Azurat . A framework for verification of concurrent systems. In Proceedings of The 5th Indonesian Student's Scientific Meeting ISSM 2000, number ISSN : 0855-8692, pages 293-296, Paris October 2000.
2001	I.S.W.B. Prasetya, A. Azurat and S.D. Swierstra. Sebuah Framework untuk Mekanisasi Multi Logika, Jurnal Ilmu Komputer dan Teknologi Informasi, Volume 1, Nomor 2, Oktober 2001, ICIS, Indonesia.
2002	A. Azurat , I.S.W.B. Prasetya, and S.D. Swierstra, Embedding Programming Logics in HOL Theorem Prover, Jurnal Ilmu Komputer dan Teknologi Informasi. Volume 2, Nomer 1, Mei 2002, ICIS, Indonesia. A. Azurat and I.S.W.B. Prasetya. A survey on embedding programming logic in a theorem prover. Technical Report UU-CS-2002-007, Institute of Information and Computing Sciences Utrecht University, P.O.Box 80.089 3508 TB Utrecht The Netherlands, January 2002. A. Azurat and I.S.W.B. Prasetya. A preliminary report on xmech. Technical Report UU-CS-2002-008, Institute of Information and Computing Sciences Utrecht University, P.O.Box 80.089 3508 TB Utrecht The Netherlands, January 2002. I.S.W.B. Prasetya, T.E.J. Vos, A. Azurat , S.D. Swierstra, !UNITY: A Theory of General UNITY Technical Report UU-CS-2002-025, Institute of Information and Computing Sciences Utrecht University, P.O.Box 80.089 3508 TB Utrecht The Netherlands, 2002.
2003	I.S.W.B. Prasetya, T.E.J. Vos, A. Azurat , and S.D. Swierstra, A UNITY-Based Framework Towards Component Based Systems, Technical Report UU-CS-2003-043, Institute of Information and Computing Sciences Utrecht University, P.O.Box 80.089 3508 TB Utrecht The Netherlands, 2003.
2004	I.S.W.B. Prasetya, T.E.J. Vos, A. Azurat , and S.D. Swierstra, A UNITY-Based Framework Towards Component Based Systems, OPODIS 2004, (published in LNCS 3544, pp. 52–66, Springer-Verlag Berlin Heidelberg 2005) I. S. W. B. Prasetya, A. Azurat , and T. E. J. Vos, Building Verification Condition Generators by Compositional Extensions, Technical Report UU-CS-2004-054, Institute of Information and Computing Sciences Utrecht University, P.O.Box 80.089 3508 TB Utrecht The Netherlands, 2004.

<i>Year</i>	<i>Publication</i>
2005	<p>A. Azurat, I.S.W.B. Prasetya. A Formalism for Component Framework, Jurnal Ilmu Komputer dan Teknologi Informasi. To appear, 2005, ICIS, Indonesia.</p> <p>Ade Azurat, External Embedding: Sebuah Metode untuk Verifikasi Program. (Extended abstract dari publikasi di ISSM 2000). Jurnal MTI, Juni 2005</p> <p>Purbojati, R.W., Prasetya, I.S.W.B., Maizir, S., Wibowo, B., & Azurat, A. LinguSQL: A Verification and Transformation Tool for Database Application. In Seminar Nasional Ilmu Komputer dan Teknologi Informasi (SNIKTI) 2005.</p> <p>A. Azurat dan I.S.W.B. Prasetya, Towards Reliable Component Software: Light-weight Formalism. 8th International Conference on Quality in Research (QiR) 2005.</p> <p>Suhartanto, H., Prasetya, I.S.W.B., Widjaja, B., Stefanus, L. Y., Azurat, A., Aminah, S., & Bong, J. (2005). Technology for Specifying and Generating Critical Data Processing Programs. In Proceedings of 8th International Conference on Quality of Research 2005.</p> <p>Wishnu Prasetya, Ade Azurat, Tanja Vos, Arthur van Leeuwen Building Verification Condition Generators by Compositional Extensions, 3rd International Conference on Software Engineering and Formal Methods - SEFM 2005, Koblenz, German 2005 (to Appear in IEEE Computer Society Press)</p> <p>A. Azurat, I.S.W.B. Prasetya, T.E.J. Vos, H. Suhartanto, B. Widjaja, L.Y. Stefanus, R. Wenang, S. Aminah, J. Bong, Towards Automated Verification of Database Scripts, Emerging Trends Paper TPHOLs 2005, Oxford 2005. Available as Oxford Technical Report RR-05-02, Eds. J.Hurd, E.Smith. A. Darbari. Oxford, July 2005.</p> <p>I.S.W.B. Prasetya, A. Azurat, T.E.J. Vos, A. van Leeuwen, H. Suhartanto, Theorem Prover Supported Logics for Small Imperative Languages, Technical Report UU-CS-2005-046, Institute of Information and Computing Sciences Utrecht University, P.O.Box 80.089 3508 TB Utrecht The Netherlands, 2005</p>

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