

CURRICULUM VITAE

OENARDI LAWANTO

Associate Professor

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EDUCATION

2003-2008 University of Illinois at Urbana-Champaign, Illinois
Ph.D. in Human Resource Education, College of Education (May, 2008)

Dissertation Title: *Self-Appraisal and Self-Management of Cognition and Problem Difficulty: Relationship and Metacognitive Changes during an Engineering Design Project*
Research Interests: Cognition, Learning, Instruction, and Online Learning

Major Professor: Dr. Scott D. Johnson

1987-1988 University of Dayton, Ohio
Master of Science in Electrical Engineering (May, 1988)

Thesis Title: *Analysis of the System Clock in Digital Systems*

1983-1986 Iowa State University, Iowa
Bachelor of Science in Electrical Engineering (December, 1986)

1982-1983 Iowa Central Community College, Fort Dodge, Iowa
General Engineering (transferred to Iowa State University)

ADVANCED TRAININGS

2015 Office of Research and Graduate Studies, Utah State University
Write Winning Grant Proposals – 1-day seminar

2011 National Science Foundation (NSF)
How People Learn Engineering Workshop at Colorado School of Mines in Golden

2010 Office of Vice President for Research Office, Utah State University
Proposal Writing Institute

2009 National Science Foundation (NSF)
Proposal Writing Workshop during Frontier in Education (FIE) Conference

- 2004 Human Resource Education, University of Illinois at Urbana-Champaign
Building Professional Credibility, a symposium sponsored by the University Of Illinois Department Of Human Resource Education with support from the Boeing Company.
- 2000 World Bank Institute (WBI)
An International workshop, collaborative activities organized by World Bank Institute and Singapore Polytechnic.
Topic: *Interactive Learning Technology (ILT-1)*
- 1999-2000 World Bank Institute (WBI)
An international workshop, collaborative activities organized by World Bank Institute, Asian Institute of Technology (AIT), University of Illinois at Urbana-Champaign, and University of Science Malaysia (USM).
Topic: *Improving Training Quality through Peer-based Learning and Distance Mentoring (ITQ-2)*

SELECTED PROFESSIONAL APPOINTMENTS / SERVICE

- 2008-present Department of Engineering Education
College of Engineering, Utah State University
Associate Professor (2014 – present)
Assistant Professor (2008 – 2014)
- 2016-2021 Member of Board of Advisory NSF- CAREER project – Dr. Ankur Jain (University of Texas at Arlington)
- 2015-2020 Research Mentor – College of Engineering CAREER awardee
Mentoring/coaching Dr. Kyumin Lee (Computer Science Professor – Utah State University) in his NSF-CAREER research
- 2015 – 2016 Heading the Need Assessment Task Force for Engineering Education Certificate Program, Utah State University
- 2015-2016 Faculty Research Mentor – Department of Engineering Education, Utah State University.
Mentoring/coaching Dr. Luthfiah Nurlaela and Dr. I. G. P. Asto Buditjahjanto from Universitas Negeri Surabaya (Unesa) - Indonesia to develop and implement two research projects
- June–July 2015 Seminar on *Developing an Online Course: Bridging Research to Practice* at Universitas Negeri Surabaya (Unesa) and Universitas Surabaya (Ubaya) in Indonesia
Presenter (invited)
- 2014-2015 Teaching Coaches – New Faculty Teaching Academy
To help, guide, and support the new faculty member as they embrace their teaching responsibilities

2012-2015	Chair/Member of Faculty Senate - Faculty Evaluation Committee (FEC) Utah State University Chair (2014-2015) Member (2012-2015)
2015	Developed a hybrid course "Fundamental Electronics for Engineers"
August 2014	Empowering Teaching Excellence Conference – Center for Innovative Design & Instruction (CIDI) – Utah State University Presenter (invited): "Pedagogical Concerns in Online Learning"
2014 – 2015	Heading the development, implementation, and analyses of the Utah State University IDEA Faculty Survey
2014	Strategic Planning Committee for the Engineering Education Department, Utah State University
2014	Program Committee of the 2014 International conference on Advanced Computer Science and Information System (ICACSIS).
May 2014	Workshop on Online Course – College of Engineering – Utah State University Presenter (invited): "Developing an Online Curriculum"
2013 (May-Nov.)	International Workshop "Developing an Online Educational Curriculum" Designer, developer, and facilitator of the workshop A collaborative activity among Universitas Indonesia, Ministry of Education and Culture of the Republic of Indonesia, and Utah State University
2013-present	Manuscript Journal Reviewer for Computers in Human Behavior
2009-2012	Developed two graduate courses: Role of Cognition in Engineering and Technology Education and Curriculum Development for Online Courses
2012 (July)	Visiting Professor of Engineering Education at Universitas Negeri Surabaya (Unesa)
2012	A special joint and closed session between engineering education researchers and grantees from Engineering Research Centers (ERCs) at National Science Foundation (NSF-EEC) grantee's meeting (invited)
2011 (December)	Visiting Professor of Engineering Education at University Teknologi Malaysia (UTM)
2010 - 2013	Adjunct Professor of Engineering Education at Universitas Widya Kartika, Surabaya, Indonesia
2010	Strategic Planning Committee for the College of Engineering, Utah State University

2008-present	Manuscript Journal Reviewer for numerous journal: IEEE Transactions on Education; Computers & Education; Journal of STEM Education; Computers in Human Behavior; Journal of Technology Education; Scandinavian Journal of educational Research
2008-present	Committee member of the Engineering Undergraduate Research Program (EURP) – Utah State University
2009-13-15-16	National Science Foundation (NSF) Panel Reviewer: (1) Innovation in Engineering Education, Curriculum, and Infrastructure (CCLI); (2) Research in Engineering Education (REE)
2003-2008	Human Resource Education Department, University of Illinois at Urbana-Champaign Developmental Assistant (DA) and Teaching Assistant (TA) at HRE Online programs As a DA, I worked on technology-related aspects of the programs such as developing course websites and communication media. As a TA, I helped professors teach several courses such as International Human Resource Development, Instructional Technique, and Program Evaluation.
2003	Office of Continuing Engineering Education (OCEE), College of Engineering, University of Illinois at Urbana-Champaign Evaluation of the Online Program at the College of Engineering University of Illinois Urbana-Champaign
1988-2003	Department of Electrical Engineering, University of Surabaya, Indonesia Senior Lecturer - Academic Rank: Lector Taught several courses such as digital concept, digital laboratory, computer architecture and organization, and computer programming
1988-2003	College of Engineering, University of Surabaya, Indonesia Academic advising and students' final projects advising
1989-94/1999-2003	Department of Electrical Engineering, University of Surabaya, Indonesia Department Head
2001-2002	World Bank Institute (WBI) and University of Surabaya Chair, organizing committee for the 1 st International Workshop on Enhancing Training Quality through Customer Service (QCS-1) in Bali, Indonesia
2002	Research Institute, University of Surabaya, Indonesia Project Chair Responsible for a research project on student interactivity and learning performance through web media in introduction to digital electronics course

- 2001 Knowledge Utilization through Learning Technologies (KULT)
Chairman, Board of Directors of the KULT Program Partners Consortium
- 2000-2002 Office of Vice Rector for Academic Affairs, University of Surabaya
Curriculum and Instructional Training Designer and Trainer
Responsible for designing and conducting a five-phase workshop on improving training quality through distance mentoring for senior lectures, school teachers and trainers
- 1996-2002 University of Surabaya, Indonesia
Involved in numerous organization development projects such as restructuring of the performance-appraisal system and conducting a scenario planning for the university
- 1999-2000 Department of Electrical Engineering, University of Surabaya
Project Chair
Responsible for a project on building a multimedia-based learning environment USInALE (University of Surabaya Interactive and Attractive Learning Environment)
- 2000 Association of the Universities in Asia and Pacific (AUAP)
Chair, the Program Committee and Paper Reviewer for the 5th AUAP Learning and Sharing Forum in Surabaya, Indonesia

RESEARCH

- 2015-2016 National Space Grant Foundation
Co-PI on *Student Experimental Microgravity Plan System (SEMPS)* (\$44,233)
- 2013-2016 National Science Foundation (NSF)
Co-PI on REU Site: Self-Regulated Learning in Engineering Education (\$ 287,497)
- 2012-2017 National Science Foundation (NSF) - CAREER
Principle Investigator on *Cognitive and Metacognitive Activities in Engineering Design Education* (\$ 461,031)
- 2010-2013 National Science Foundation (NSF)
The Course Curriculum and Laboratory Improvement (CCLI) – Type 1 Research Project (\$ 199,944)
Principle Investigator on *Promoting Metacognitive Knowledge and Shared Note-taking to Learn Electric Circuit Concepts through Enhanced Guided Notes*
- 2010-2011 National Center for Engineering and Technology Education (NCETE)
Principle Investigator on *Understanding of Student Task Understanding, Design Planning, and Cognitive Strategies During Engineering Design Project in Grades 9-12* (\$ 44,959)
- 2010 Engineering and Technology Education (ETE), Utah State University

- Principle Investigator on *Student Metacognition during an Engineering Design Project: An exploratory study* (\$ 300)
- 2008-2009 National Center for Engineering and Technology Education (NCETE)
Principle Investigator on *Engineering Design Activity: Understanding how Different Design Activities Influence Students' Motivation in Grades 9-12* (\$ 44,494)
- 2007-2008 Human Resource Education Department, University of Illinois at Urbana-Champaign
Dissertation Research (completed in March 2008)
Principle Investigator on *Self-Appraisal and Self-Management of Cognition and Problem Difficulty: Relationship and Metacognitive Changes during an Engineering Design Project*
- 2005-2006 National Center for Engineering and Technology Education (NCETE)
Principle Investigator on *Self-Management of Cognition in a Team-Based Engineering Design Project: A Case Study* (\$ 1,500)

SELECTED PUBLICATIONS

BOOK CHAPTERS

- Johnson, S. D., Dixon, R., Daugherty, J., & **Lawanto, O.** (2011). General versus specific intellectual competencies: The question of learning transfer. In M. Barak & M. Hacker (Eds.), *Fostering Human Development through Engineering and Technology Education* (pp. 55-74). Netherlands: Sense Publishers.

PEER REVIEWED JOURNALS

- Goodridge, W., **Lawanto, O.**, & Santoso, H. (2016, accepted). Comparing Broadcast and Face-to-Face Engineering Graphics Instructions Viewed from a Learning Style Perspective: A Preliminary Study. *International Education Studies*.
- Fang, N., **Lawanto, O.**, Villanueva, I., Goodridge, W., & Becker, K. (2016, accepted). A Research Experiences for Undergraduates (REU) Site Program on Engineering Education Research. *International Journal of Engineering Education*.
- Rivera-Reyes, P. & **Lawanto, O.** (2016). Understanding Student Coregulation in Task Interpretation during Electronics Laboratory Activities. *International Education Studies*, 9(7), pp. 1-9.
- Rivera-Reyes, P., **Lawanto, O.**, & Pate, M. L. (2016, accepted). Students' Task Interpretation and Conceptual Understanding in Electronics Laboratory. *IEEE Transactions on Education*.
- Santoso, H. B. & **Lawanto, O.** (under review). Relationship between Student Computer Self-Efficacy and Cognitive Actions and Metacognitive Strategies while Engaged in Interactive Learning Modules. *Educational Technology and Society*.
- Song, T., Becker, K., Gero, J., Deberard, S., **Lawanto, O.**, & Reeve, E. (2016). Problem Decomposition and Recomposition in Engineering Design: A

Comparison of Design Behavior Between Professional Engineers, Engineering Seniors, and Engineering Freshmen. *Journal of Technology Education*, 27(2), pp. 37-56.

- Santoso, H. B., **Lawanto, O.**, Becker, K., Fang, N., & Reeve, E. M. (2014). High and Low Computer Self-Efficacy Groups and Their Learning Behavior from Self-Regulated Learning Perspective While Engaged in Interactive Learning Modules. *Journal of Pre-College Engineering Education Research (J-PEER)*, 4(2), Article 3. <http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1093&context=jpeer>
- **Lawanto, O.**, Santoso, H. B., Lawanto, K. N., & Goodridge, W. (2014). Self-Regulated Learning Skills and Online Activities between Higher and Lower Performers in a Web-intensive Undergraduate Engineering Course. *Journal of Educators Online*, 11(2), pp. 1-11.
- **Lawanto, O.**, Santoso, H. B., Goodridge, W., & Lawanto, K. N. (2014). Task-Value, Self-Regulated Learning, and Performance in a Web-Intensive Undergraduate Engineering Course: How are they related? *Journal of Online Learning and Teaching*, 10(1), pp. 97-111.
- **Lawanto, O.**, Butler, D., Cartier, S., Santoso, H. B., Goodridge, W., Lawanto, K. N., & Clark, D. (2013). Comparing Self-Regulated Learning of Secondary School Students and College Freshman Students during an Engineering Design Project. *Journal of STEM Education*, 14(4), pp. 34-46.
- **Lawanto, O.** & Santoso, H. (2013). Self-regulated Learning Skills of Engineering College Students while Learning Electric Circuit Concepts with the Enhanced Guided Notes. *International Education Studies*, 6(3), pp. 88-104.
- **Lawanto, O.**, Butler, D., Cartier, S., Santoso, H. B., & Goodridge, W. (2013). Task Interpretation, Cognitive, and Metacognitive Strategies of Higher and Lower Performers in an Engineering Design Project: An Exploratory Study of College Freshmen. *International Journal of Engineering Education*, 29(2), pp. 459-475.
- **Lawanto, O.**, Butler, D., Cartier, S., Santoso, H. B., Lawanto, K. N., & Clark, D. (2013). An Exploratory Study of Self-Regulated Learning Strategies in a Design Project by Students in Grades 9-12. *Design & Technology Education: an International Journal*, 18(1), pp. 44-57.
- Cornacchione, E. B., **Lawanto, O.**, Githens, R., & Johnson, S. D. (2012). The Role of Students' Professional Experience in Online Learning: Analysis of Asynchronous Participation. *Journal of Online Learning and Teaching*. 8(2), pp. 88-97.

This paper was selected and highlighted as "Research Article of the Week" by Distance-Educator Newsletter on December 10, 2012.

- **Lawanto, O.**, & Johnson, S. D. (2012). Metacognition in an engineering design project. *International Journal of Engineering Education*, 28(1), pp. 92-102.
- **Lawanto, O.** (2012). The Use of Guided Notes in Electric Circuit Class: An Exploratory Study. *IEEE Transactions on Education*, 55(1), pp. 16-21.

- **Lawanto, O.**, Santoso, H., & Liu, Y. (2012). Understanding of the relationship between interest and expectancy for success in engineering design activity in grades 9-12. *Educational Technology and Society*, 15(1), pp. 152-161.
- **Lawanto, O.** & Stewardson, G. (2011, online; 2013, printed). Students' Interest and Expectancy for Success While Engaged in Analysis- and Creative- Design Activities. *International Journal of Technology and Design Education*, 23(2), pp. 213-227.
- **Lawanto, O.** (2010). Students' metacognition during an engineering design project. *Performance Improvement Quarterly*, 23(2), pp.115-134.

IN PROGRESS

- **Lawanto, O.** & Febrian, A. Self-Regulation Activities in Engineering Design Project
- **Lawanto, O.** *Impact of REU-Site Program on Student's Perception about Engineering Education Research*

NON-REFEREED

- **Lawanto, O.** (2011). Understanding of student task interpretation, design planning, and cognitive strategies during engineering design activities in Grades 9-12. digitalcommons.usu.edu/ncete_publications/163/.
- **Lawanto, O.** & Stewardson, G. (2009). Engineering Design Activity: Understanding How Different Design Activities Influence Students' Motivation in Grades 9-12. digitalcommons.usu.edu/ncete_publications/124/.
- **Lawanto, O.** (2008). Self-appraisal and self-management of cognition and problem difficulty: Relationship and metacognitive changes during an engineering design project. *Dissertation Abstracts International Section A: Humanities and Social Sciences*. 69(5-A), pp. 1670.
- **Lawanto, O.** (2005). The self-management of cognition in a team-based engineering design project: A case study. http://digitalcommons.usu.edu/ncete_publications/119/.

CONFERENCES (PEER-REVIEWED)

- **Lawanto, O.** & Febrian, A. (2016, accepted). Students' Self-Regulation in Capstone Design Courses: A case study of two project teams. Erie, PA: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- Fang, N., **Lawanto, O.**, Goodridge, W., & Villanueva, I. (2016, abstract accepted). Research Experiences for Undergraduates (REU) on Self-Regulated Learning in Engineering Education. Erie, PA: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- Friess, W. & **Lawanto, O.** (2016). Integration of free form modeling modules supported by additive manufacturing tools into a first year engineering graphics course; assessment of improvements in student Spatial Visualization. New Orleans, LA: *American Society of Engineering Education (ASEE) Annual Conference*.

- **Lawanto, O.**, Cromwell, M., & Febrian, A. (2016). Student's Self-Regulation in Managing Capstone Senior Design Project. New Orleans, LA: *American Society of Engineering Education (ASEE) Annual Conference*.
- Fang, N., & **Lawanto, O.** (2016). Self-Regulated Learning in Engineering Education: A Research Experiences for Undergraduates (REU) Site Program. New Orleans, LA: *American Society of Engineering Education (ASEE) Annual Conference*.
- Febrian, A., **Lawanto, O.**, & Cromwell, M., & (2015). Work in Progress: Advancing Research on Engineering Design using e-Journal. El Paso, TX: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- **Lawanto, O.**, Cromwell, M., & Febrian, A. (2015). Work in Progress: Engineering Design Journey and Project Management. El Paso, TX: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- Fang, N., **Lawanto, O.**, & Becker, K. (2015). A REU-Site Program for Engineering Education Research on Self-Regulated Learning. Seattle, WA: *American Society of Engineering Education (ASEE) Annual Conference*.
- **Lawanto, O.** (2014). Work in Progress: Self-Regulated Learning Activities in Engineering Design Education. Madrid, Spain: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- **Lawanto, O.** & Santoso, H. (2014). Development and Validation of the Engineering Design Metacognitive Questionnaire. Indianapolis, IN: *American Society of Engineering Education (ASEE) Annual Conference*. This paper was voted to be one of the best published manuscripts of the Design in Engineering Education Division.
- **Lawanto, O.**, Becker, K., Lawanto, K. N. & Santoso, H. B. (2013). Poster presentation on International Workshop on Developing Online Education. Logan, UT: *The Fourth Annual Utah International Higher Education Summit 2013*.
- Santoso, H. & **Lawanto, O.** (2013). Shared Note-Taking Using Electronic Enhanced Guided Notes: Peer-Review Activity, Performance, and Self-Regulated Learning Skills. Oklahoma City, OK: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- **Lawanto, O.** & Santoso, H. (2013). Students' Collaborative Note-Taking Activities While Using Electronic and Paper-Based Enhanced Guided Notes: Viewed from Metacognitive and Social Network Perspectives. Oklahoma City, OK: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- Santoso, H. & **Lawanto, O.** (2013). Computer Self-Efficacy, Cognitive, and Metacognitive Strategies of High School Students While Engaged in Interactive Learning Modules. Oklahoma City, OK: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- **Lawanto, O.** (2013). Poster presentation on *Enhanced Guided Notes and Metacognitive Knowledge*. Washington DC: *NSF CCLI-TUES PI Conference* (invited).

- Rivera-Reyes, P. & **Lawanto, O.** (2013). Bridging Engineering and Technology Education Fields: Providing Synthesis and Knowledge through Historical Perspectives of Engineering and technology Education Construct. Atlanta, GA: *American Society of Engineering Education (ASEE) Annual Conference*.
- **Lawanto, O.**, & Santoso, H. B. (2013). Investigating Students' Self-Regulated Learning While Learning Electric Circuit Concepts with Enhanced Guided Notes. Atlanta, GA: *American Society of Engineering Education (ASEE) Annual Conference*.
- Santoso, H. & **Lawanto, O.** (2013). Self-Regulated Learning Skills of High School Students While Learning Using Interactive Learning Modules. Presented on Special Poster Session: Mentorship through Proposed Research. Atlanta, GA: *American Society of Engineering Education (ASEE) Annual Conference*.
- **Lawanto, O.** (2012). Self-Regulating Learning Strategies in Managing Team Efforts in a Design Project: A Preliminary Study on Secondary School Students. Washington, DC: *2nd P-12 Engineering and Design Research Summit*.
- **Lawanto, O.** (2012). Cognitive and Metacognitive Activities in Engineering Design Education. Washington DC: *NSF EEC PI Conference*.
- **Lawanto, O.** (2012). Implementation of the Enhanced Guided Notes to Promote Students' Metacognitive Knowledge While Learning Electric Circuit Concepts. Seattle, WA: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- **Lawanto, O.** (2012). Work in Progress: Implementation of the Enhanced guided Notes and the Collaborative Note-Taking to Learn Electric Circuit Concepts. Seattle, WA: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- Goodridge, W., Greenhall, S., **Lawanto, O.**, & Stewardson, G. (2012) Measuring the Differences in Spatial Ability between a Face-to-Face and a Synchronous Distance Education Undergraduate Engineering Graphics Course. San Antonio, TX: *American Society of Engineering Education (ASEE) Annual Conference*.
- **Lawanto, O.** & Goodridge, W. (2012). Self-regulated Learning Strategies of Grades 9-12 Students in Design Project: Viewed From Performance and Gender Perspectives. San Antonio, TX: *American Society of Engineering Education (ASEE) Annual Conference*.
- Rivera-Reyes, P., Boyles, R., & **Lawanto, O.** (2012). Offsetting Gender Bias in Engineering: Gender Equity Internet Controlled Fish Farm Curriculum Activity. San Antonio, TX: *American Society of Engineering Education (ASEE) Annual Conference*.
- **Lawanto, O.**, Butler, D., & Cartier, S. (2012). Students' Self-Regulated Strategies for an Engineering Design Project: An Exploratory Study of College Freshmen, In Researching Self- and Co-Regulated Learning as Situated in Contexts: Implications for Theory, Research, and Practice Structured Poster session (a full-paper was also written and published). Vancouver, Canada: *American Educational Research Association (AERA) 2012 Annual Meeting*.

- **Lawanto, O.**, Goodridge, W., & Santoso, H. B. (2011). Task Interpretation and Self-Regulating Strategies in Engineering Design Project: An exploratory study. Vancouver, Canada: *American Society of Engineering Education (ASEE) Annual Conference*.
- Santoso, H. B., Boyles, R., **Lawanto, O.**, & Goodridge, W. (2011). A Preliminary Study of Conducting Semi-Structured Interview as Metacognitive Assessment in Engineering Design: Issues and Challenges. Vancouver, Canada: *American Society of Engineering Education (ASEE) Annual Conference*.
- **Lawanto, O.** (2011). Work in Progress: Student Task Interpretation, Design Planning, and Cognitive Strategies in Engineering Design Project: An exploratory study for Grades 9-12. Rapid City, SD: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- **Lawanto, O.**, Schreuders, P., Holton, D, & Dorward, J. (2011). Work in Progress: Promoting Metacognitive Knowledge and Shared Note-Taking to Learn Electric Circuit Concepts through Enhanced Guide Notes. Rapid City, SD: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- Santoso, H. B., **Lawanto, O.**, Hasibuan, Z. A., & Aji, R. F. (2011). Work in Progress: Assessing Cognitive Skills in Asynchronous Online Discussion: A Case Study of Student Centered E-Learning Environment in Indonesia. Rapid City, SD: *ASEE/IEEE Frontiers in Education Conference Annual Conference*.
- **Lawanto, O.** & Stewardson, G. (2010). Students' interest and expectancy for success while engaged in analysis- and creative design activities. Seaside, OR: *2010 P-12 Engineering and Design Education Research Summit*.
- **Lawanto, O.** (2010). Understanding the correlation between goal orientation and self-efficacy for learning and performance in an engineering design activity in grades 9-12. Reno, NV: *American Society of Engineering Education Zone IV Conference*
- **Lawanto, O.**, & Johnson, S. D. (2009). Students' cognitive self-appraisal, self-management, and the level of difficulty of an engineering design project: Are they related? *Proceeding of the 116th Annual ASEE Conference & Exposition (AC 2009-478)*. New York: *American Society of Engineering Education*. This paper was voted to be one of the best published manuscripts of the Design in Engineering Education Division.
- **Lawanto, O.** (2009). Metacognitive changes during an engineering design project. *ASEE/IEEE Frontiers in Education Conference*. San Antonio, TX.
- **Lawanto, O.** (2007). Self-Management of Cognition in a Team-Based Engineering Design Project: A Case Study. *Proceedings of the 114th Annual ASEE Conference & Exposition: Riding the wave to excellence in engineering education (AC 2007-2201)*. New York: *American Society of Engineering Education*.

OTHER RELEVANT PUBLICATIONS

- **Lawanto, O.** (2012). Students Self-Regulated Learning Strategies for an Engineering Design Project: An Exploratory Study of Grades 9-12 and College

Freshmen. Webinar for International Federation of Engineering Education Societies (IFEES) and Indo Us Collaboration for Engineering Education (IUCEE) (invited).

- **Lawanto, O.** (2001). Incorporating Web Technology into Face-to-Face cooperative Learning in an Engineering Course. Proceeding of the 19th ICDE World Conference on Learning and Teaching Online. Guangzhou, China. (paper was peer-reviewed and presented).
- **Lawanto, O.** (2001). Web-based Training in Engineering: University of Surabaya's Case. *Proceedings of the International 7th Symposium on Open and Distance Learning "ODL 2001: Facing Global Competition."* Yogyakarta, Indonesia. (paper was peer-reviewed and presented)
- **Lawanto, O.** (2000). Incorporating Web Technology in Face to Face Cooperative Learning in an Engineering Course. *Unitas*, 9(1), 3-16. Available: <http://repository.ubaya.ac.id/39/1/ART001.pdf> [Accessed: September 19, 2012].
- **Lawanto, O.** (2000). Pembelajaran Berbasis Web Sebagai Metoda Komplemen Kegiatan Pendidikan dan Pelatihan (*written in Indonesian*). *Unitas*, 9(1), 44-58. Available: <http://repository.ubaya.ac.id/51/1/ART004.pdf> [Accessed: September 19, 2012].
- **Lawanto, O.** (unpublished book, ed.1998, 2000, 2001, printed by the University of Surabaya press)
Dasar Teknik Digital (written in Indonesian)
A book on introductory to digital logic design for electrical engineering students

GRADUATE-LEVEL COURSES DEVELOPMENT

- The Role of Cognition in Engineering and Technology Education (2009)
- Developing an Online Educational Curriculum (2012)

ONLINE COURSE DEVELOPMENT

- Fundamental to Electronics for Engineers (Canvas-based course)

GRADUATE DISSERTATION (PHD) COMMITTEE AND CHAIR*

Instructional Technology and Learning Science Department at USU
Kami Henson (2010)

Engineering and Technology Education Department at USU
Matthew D. Lammi (2011); Scott Greenhalgh (2012); Trevor Robinson (2013); Raymond Boyles (2014)

Engineering Education Department at USU
**Harry B. Santoso (2013); Shaobo Huang (2012); Ting Song (2014); Jacob Bishop (2014); *Presentacion Rivera Reyes (2015); Oai (Andy) Ha (2015); Joel (Alex) Mejia (2014); Yongqing (Sofia) Guo (2015); Stacie Gregory (2014); *Kristin Strong; Matthew Meyer (2015); *Angela Minichiello (2016); Seyedmohammad (Moe) Tajvidi; *Andreas Febrian; *Matthew Cromwell; Murad Mahmoud; Gang (Michael) Liu; Ben Call, *Maria Manuela*

ACHIEVEMENT HONORS & AWARDS

- College of Engineering Faculty Service Award 2016 – Utah State University
- Finalist for Faculty University Service Award 2016 – Utah State University
- Department Graduate Student Mentor of the Year 2016 – Engineering Education Dept., Utah State University (February 19, 2016)
- Department Faculty University Service Award 2016 – Engineering Education Dept., Utah State University (February 19, 2016)
- American Society for Engineering Education (ASEE) – Design in Engineering Education Division, June 2014 in Indianapolis, IN.
Finalist for Best Papers
- Finalist for Eldon J. Gardner Teacher of the Year 2014 – Utah State University
- Teaching Excellence 2014 – College of Engineering, Utah State University (February 19, 2014)
- Department Teacher of the Year 2014 – Engineering Education Dept., Utah State University (February 21, 2014)
- Research Article of the Week by Distance-Educator Newsletter (December 10, 2012)
- Outstanding Researcher – Department of Engineering Education, Utah State University (March 2012)
- National Science Foundation (NSF) CAREER Award (September 2011)
- Outstanding Researcher – Department of Engineering and Technology Education, Utah State University (March 2011)
- National Academy of Engineering (NAE) - Center for the Advancement of Scholarship on Engineering Education (CASEE) New Faculty Fellows
The award was presented during Frontier in Education (FIE) 2009 conference in San Antonio, TX.
- American Society for Engineering Education (ASEE) – Design in Engineering Education Division, June 2009 in Austin, TX.
Finalist for Best Papers
- Incomplete List of Teachers Ranked as Excellent by Students, Fall 2005, University of Illinois at Urbana-Champaign
- William Chandler Bagley Fellowship – University of Illinois at Urbana-Champaign (2005)
- Donna Riechmann Fellowship – University of Illinois at Urbana-Champaign (2004)
- Best Group Presentation

Title: *Interactive Learning Technology (ILT) to Improve Student's Learning*
The award was received during sharing and learning forum ILT-1 in Singapore, August 2000. This is an award given as a group achievement. A collaborative activity organized by World Bank Institute and Singapore Polytechnic.

- Best Poster
Title: *Student Centered-Learning in Engineering*
The award was received during sharing and learning forum Improving Training Quality (ITQ-2) workshop in Penang, Malaysia, January 2000. A collaborative activity organized by World Bank Institute, Asian Institute of Technology, University of Science Malaysia, and University of Illinois at Urbana-Champaign.

Pending Support Research Grants

- REU Site: Understanding Students' Problem Solving in Engineering Education (as the PI) (NSF: DUE) (\$458,153)
- Assessing Spatial Visualization Benefits of Freeform Modeling and 3D Manipulatives in First Year Engineering (as the PI) (NSF: DUE) (\$298,925)

ORGANIZATIONS

- American Society for Engineering Education (ASEE)
 - International Technology and Engineering Educators Association (ITEEA)
 - American Educational Research Association (AERA)
 - National Academy of Engineering (NAE) - Center for the Advancement of Scholarship on Engineering Education (CASEE) (invited as member of the extended community)
 - Phi-Kappa-Phi Honor Society (invited)
-