



Nur Ulfa MAULIDEVI

Home Country
Indonesia

Degree
PhD in Electrical
Engineering

Expertise
Artificial Intelligence
as
an Imitation of Human
Cognition Systems

Research Focus
Multi-Agents in
Collaborative
Knowledge Building

Host University
Institute of
Technology
Bandung, Indonesia

Fellowship Awarded
2006

Nur Ulfa Maulidevi was born and raised in Kediri, a small town in an East Java province in Indonesia. Her parents encouraged their four daughters academically and supported Nur Ulfa in her decision to move to Bandung to study informatics engineering at the Institute of Technology Bandung (ITB).

After obtaining her undergraduate degree in informatics engineering, she joined the Informatics Engineering Department of ITB as a junior assistant. She married her husband after obtaining her master's degree, and her son was born a year later while she was pursuing her doctorate. She received her PhD in electrical engineering in June 2008, and one month later she delivered her second child, a girl.

Working in the Artificial Intelligence Lab of the School of Electrical Engineering and Informatics ITB, Nur Ulfa is developing an engineering model of collaborative knowledge building that imitates the human cognition process. Based on the academic disciplines of cognitive psychology and computational science, her research is aimed at finding mechanisms to solve complex problems using computer resources. In cognitive psychology, artificial intelligence is studied as a model of the human cognition process. In computation science, artificial intelligence developed to imitate human intelligence is intended to support next-generation computing. When distributed in several computer processors, collaborative knowledge building produces a collaborative computation that can help solve complex problems such as airport scheduling, job-shop scheduling in industries, and traffic light controllers to minimize traffic jams. It can also be implemented in systems that are designed to help cognitively impaired persons. Her work is contributing to the design of agents in collaborative knowledge building that imitate the human cognition process, in that each agent has reasoning and learning capabilities.

As a junior lecturer and researcher at ITB, Nur Ulfa hopes that she will help to attract more women into informatics engineering.