

# CURRICULUM VITAE

## PERSONAL

---

1. Name : Djoko Luknanto
2. Occupation : Lecturer/research engineer at Civil Engineering Department, Faculty of Engineering, Gadjah Mada University
3. Place and date of birth : Bandung, 7 October 1956, Indonesia
4. Nationality : Indonesia
5. Home address : Jalan Kakap Raya 24,  
Perumnas Minomartani,  
Yogyakarta 55581
1. Website : <http://luk.tsipil.ugm.ac.id/> and  
<http://luk.staff.ugm.ac.id/>
7. E-mail : [Luknanto@ugm.ac.id](mailto:Luknanto@ugm.ac.id)  
[laMotta@telkom.net](mailto:laMotta@telkom.net)  
[Luknanto@tsipil.ugm.ac.id](mailto:Luknanto@tsipil.ugm.ac.id)  
[Luk@tsipil.ugm.ac.id](mailto:Luk@tsipil.ugm.ac.id)  
[Djoko\\_Luknanto@yahoo.com](mailto:Djoko_Luknanto@yahoo.com)  
[Luknanto@gmail.com](mailto:Luknanto@gmail.com)

## OFFICE

---

1. Office name : Hydraulic Laboratory, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University
2. Office address : Komplek Fakultas Teknik  
Jln. Grafika 2  
Yogyakarta 55281, INDONESIA  
Telp: +62 (0274)-902236, 902237  
Fax: +62 (0274)-589659, 519788
3. Rank : Lektor (III/c)

## EDUCATION

---

- Sarjana Teknik Sipil (Ir., Engineer),  
Civil Engineering Department, Faculty of Engineering,  
Gadjah Mada University, Yogyakarta, Indonesia 1976-1983
- Master of Science (M.Sc.),  
Civil and Environmental Engineering Department,  
College of Engineering, The University of Iowa,  
Iowa City, IA 52242, USA 1986-1988

Doctor of Philosophy (Ph.D.),  
Civil and Environmental Engineering Department,  
College of Engineering, The University of Iowa,  
Iowa City, IA 52242, USA

1988-1991

## **FIELDS OF SPECIALIZATION**

---

- Water Resources Management: water distribution, optimization of water distribution.
- River Hydraulics: numerical modeling of river hydrodynamics.
- Environmental Hydraulics: numerical modeling of pollutant transport, dispersion processes.
- Computational Hydraulics: numerical modeling of river structures: pumping station, weir, gated control structures, rubberdam, movable weir, retarding basin, irrigation structures.
- Waterpower Engineering: designing, numerical modelling.
- e-Learning in higher education.

## **LANGUAGE & DEGREE OF PROFICIENCY**

---

Javanese	good
Indonesian	excellent
American English	excellent

## **MEMBERSHIP OF PROFESSIONAL SOCIETIES**

---

Indonesian Association of Hydraulic Researchers (HATHI, Himpunan Ahli Teknik Hidraulik Indonesia)  
Indonesian Association of Engineers (PII, Persatuan Insinyur Indonesia)

## **COUNTRIES OF WORK EXPERIENCE**

---

Indonesia, USA, Sri Lanka, Japan

## **EMPLOYMENT RECORDS**

---

### **Position**

---

Chairman of the Center for Education Development of Gadjah Mada  
University, Yogyakarta, Indonesia

2011-now

Vice Chairman of the Center for Education Development of Gadjah Mada  
University, Yogyakarta, Indonesia

2008-2010

A member of reviewers of Directorate General of Higher Education, Ministry of Education, Indonesia, for several competitive funding schemes: Semi QUE, DUE-like, SP4, TPSDP, PHK 2004, I-MHERE Project, Sri Lanka IRQUE/QEF Project, PHK-I 1999-now

Chairman of The Committee for Development of Information and Communication Technology Based Education, Gadjah Mada University 2003-2005

Head of the Hydraulic Laboratory, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University 2001-2004

Vice Director of Academic Affair, Master Programme in Water Resources Management, Graduate School, Faculty of Engineering, Gadjah Mada University 2001-2003

Vice Director of Financial Affair, QUE Competitive Funding Scheme Project, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University 1999-2001

### **Academic Experiences**

---

Lecturer, Civil Engineering Department, Graduate College, Gadjah Mada University 1992-now

Research engineer, Inter University Center, Engineering Science, Gadjah Mada University 1991-2002

Lecturer, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University 1983-now

Lecturer, Indonesian Military Academy, Magelang 1993-1995

Research engineer, Hydraulic Laboratory, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University 1983-now

Lecturer on Open Channel Hydraulics at: 1983-1985

- Civil Engineering Department, Faculty of Engineering, Gadjah Mada University
- Civil Engineering Department, Faculty of Engineering, Atma Jaya University
- Civil Engineering Department, Faculty of Engineering, Universitas Islam Indonesia

Assistant Lectures at Sanitary Engineering Laboratory, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University 1981-1982

Assistant Lectures of Engineering Mechanics I, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University 1979-1982

---

## Research & Extension Experiences

---

- Groundwater specialist on collaboration project on monitoring methods of monuments between National Research Institute for Cultural Properties, Tokyo (NRICPT), Japan and Borobudur Heritage Conservation Office (BHCO), Indonesia 20<sup>th</sup> October 2008 – 25<sup>th</sup> October 2008
- Developing several e-learning courses in Civil and Environmental Engineering Department, Faculty of Engineering, Gadjah Mada University. 2004-now
- Instructor on many workshops and seminars in e-learning for higher education. 2005-now
- Extensive researches on numerical modeling of river hydrodynamic, pollutants transports, computational hydraulics, hydraulic transients.
- **Member of Curriculum Task Force for S1, S2, S3 Degree, Civil Engineering Department, Faculty of Engineering, Gadjah Mada University.** 1995-1996

---

## PUBLICATIONS

---

### Books

---

- 1996 Course book: "Local Scour at Bridge Piers," Perumka Training Center, Faculty of Engineering, GMU, 10–16 Juli 1996
- 1994 Course book: "Numerical Modeling of Hydraulic Transient in A Series of Pipes," PLN Engineering Service Center, Faculty of Engineering, GMU, 1994
- 1993 Course book: "Numerical Modeling of One Dimensional Unsteady Flow in Natural Rivers," UNILA–HEDS–JICA–UGM, 1993
- 1993 Course book: "Mathematical Modeling," Inter-University Center, Engineering Science, Gadjah Mada University, February 1993
- 1992 Course book: "Non Linear Optimization Technique," UNILA–HEDS–JICA–UGM–ITB, 1992
- 1992 Course book: "Pollutant Transport," Inter-University Center, Engineering Science, Gadjah Mada University, June 1992
- 1988 Co-author of 'teaching aid' for Finite Element Courses at The University of Iowa, Iowa City, Iowa 52242, USA, title: "MacFinOne v2.0, Finite Element Solution of One Dimensional Boundary Value Problems"

## Selected Technical Papers

- 1996 Research paper: **“Topological Disconnection on Numerical Modeling of Rubberdams”** (Diskoneksi Topologi Untuk Pemodelan Bendung Karet) (to be published on late 1996, in Indonesian language)
- 1995 Research paper: **“Rubberdam Numerical Modeling, Case Study: Wonokromo River, Surabaya”** (Pemodelan Bendung Karet di Kali Wonokromo Surabaya) (unpublished, in Indonesian language)
- 1994 Research paper: **“Numerical Modeling of Surge Tanks”** (Model Pelepas Tekan Pada Bangunan PLTA) (unpublished, in Indonesian language)
- 1993 Research paper: **“Optimization of Water Distribution using Dynamic Programming”** (Optimasi Pembagian Air Dengan Program Dinamik) (published in Indonesian language)
- 1993 Research paper: **“Numerical Modeling of Flood Routing for Gated Spillways at Wonogiri Dam”** (Model Matematis Penelusuran Banjir di Waduk sebagai Alat Bantu Pengembangan Waduk Wonogiri) (published in Indonesian language)
- 1993 Research paper: **“Numerical Modeling of Flood Plain in Natural Rivers”** (Penanganan bantaran banjir dalam model numeris aliran air pada sungai alami) (published in Indonesian language)
- 1992 Research paper: **“Numerical Modeling of Pollutant Transport in River Networks without Looped Nodal Matrix,”** Inter University Center, Engineering Science, Gadjah Mada University. (Hitungan Tranpor Polutan didalam Suatu Sistem Jaringan Tanpa Menggunakan “Looped Nodal Matrix”) (published in Indonesian language)
- 1992 Research paper: **“The Effects of Unsteady Flow in Irrigation Channels”** (Penelitian kasus kesalahan hitungan aliran permanen pada penjatahan air satu sekunder dari sebuah saluran primer) (published, in Indonesian language)
- 1991 Ph.D. dissertation, The University of Iowa, Iowa City, Iowa 52242, USA, title: **“Numerical Simulation of Saturated Groundwater Flow and Pollutant Transport in Karst Regions”**

## Papers Presented in Trainings, Seminars, Conferences

---

- 2006-2008 Instructor on 'e-Learning in Higher Education' workshops, seminars with the topic: "Enhancing Education through Information and Communication Technology," Center for Learning Development in Higher Education, Gadjah Mada University.
- 2000, 2001 Instructor on a short course "Water resources management in decentralization era," topic: "Internet for the rest of us," Civil Engineering Department, Faculty of Engineering, Gadjah Mada University.
- 1996 Presented a paper titled: *Numerical Modeling of Saturated Groundwater Flow and Pollutant Transport in Karst Regions* at The International Symposium: "Environmental Technology: Applications in Principle and Practice," Merdeka University Malang and Murdoch University, Perth, Western Australia, 1-3 July 1996, Malang, Indonesia.
- 1993 Presented a paper titled: *Numerical Modeling of Pollutant Transport* at The National Seminar: "Modeling and Numerical Methods on Mass, Fluid and Heat Transfers," Inter-University Center, Engineering Science, Gadjah Mada University, 15-16 February 1993
- 1992 Chairman of the seminar: *Hydraulic Modeling in Engineering*, also presented a paper: "Unsteady Flow for Managing Irrigation Water Demand," Inter-University Center, Engineering Science, Gadjah Mada University, 19-20 February 1992.
- 1990 Presented a paper titled: *Modeling of ground water movement in karst domains* at the 102<sup>nd</sup> Session of The Iowa Academic of Science, April 20-21, 1990, Drake University, Des Moines, Iowa, USA

## SEMINARS AND SHORT COURSES

---

- 1996 Instructor on a short course: *River Hydraulics*, topic: "Local Scour Around Bridge Piers," PERUMKA-GMU, Yogyakarta, 10-16 July 1996.
- 1996 Instructor on a short course: *River Management III*, two topics: "Optimization" and "Pollutant Transport," UNILA-HEDS-JICA-GMU, Bandar Lampung, 3-11 January 1996.
- 1995 Instructor on a short course: *The Hydraulics of Waterway for Power House*, topic: "Waterhammer and Surge in Waterways," PLN-PPE-GMU, Yogyakarta-Jakarta, 14 June - 14 July 1995.

- 1993 Instructor on a short course: *River Management II*, topic: "1-D Unsteady Flows in Rivers," UNILA–HEDS–JICA–GMU, Bandar Lampung, 5–16 July 1993.
- 1992 Instructor on a short course: *Optimization Methods in Engineering*, topic: "Non-linear Optimization," UNILA–HEDS–JICA–GMU–ITB, Bandar Lampung, 6-17 December 1992.
- 1992 Instructor on a short course: *River Management I*, two topics: "1-D Unsteady Flows in Rivers" and "Pollutant Transport in Rivers," UNILA–HEDS–JICA–GMU, Bandar Lampung, 13-25 July 1992.
- 1992 Instructor on a short course: *Environmental Drainage Systems*, titled: "Pollutant Transport in Rivers," Pabrik Pupuk Kaltim, Bontang, April 1992.
- 1991 Instructor on a short course: *Urban Hydrology*, topic: "Hydraulic Aspects of Design and Operation of Drainage Systems," Inter-University Center, Gadjah Mada University, 4–16 November 1991.

### Consultancy Experiences

- 2003 Position: Hydraulic-modeling specialist  
 Project Name: Modeling of intake of the Sapon Weir  
 Project Owner: JICA, Japan  
 Employer: Faculty of Engineering, Gadjah Mada University  
 Duration: 6 months (March – September 2003)
- 1996-1997 Position: Hydraulic-hydrology specialist  
 Project Name: Study on Urban Drainage System at Kecamatan Kemrajen, Sumpiuh and Tambak, Kabupaten Dati II Banyumas  
 Project Owner: Pemerintah Daerah Tingkat II Banyumas  
 Employer: Faculty of Engineering, Gadjah Mada University  
 Duration: 5 months (September 1996-28 February 1997)
- 1996-1997 Position: Water Resources Specialist  
 Project Name: Study on Water Balance of Java Island  
 Project Owner: Proyek Pembinaan Pengelolaan Sumberdaya Air, Departemen PU  
 Employer: PT. Multimera Harapan  
 Duration: 7 months (29 July 1996-28 February 1997)
- 1995-1996 Position: Hydraulic-hydrology specialist

- Project Name: Design of Rubberdam at Wonokromo River for Supplying Water for East Coast of Surabaya
- Project Owner: Perum Jasa Tirta  
Employer: Perum Jasa Tirta  
Duration: 3 months (August 1995-June 1996)
- 1995-1996 Position: Hydraulic-hydrology specialist  
Project Name: Design of Tidal Brackish Fish Ponds (Talaran Unit, Kalsel, 3.500 ha)  
Project Owner: Proyek Pengembangan Daerah Rawa (P2DR) Kalimantan Selatan  
Employer: P.T. Saicle Jasa  
Duration: 8 months (September 1995-May 1996)
- 1995-1996 Position: Civil engineer  
Project Name: Study and Detail Design of Abutments of The Railroad Bridges BH 1519 and BH 1361  
Project Owner: Perum Kereta Api, Pusat Perencanaan dan Pengembangan, Kantor Pusat Perumka Bandung  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 6 months (August 1995-January 1996)
- 1995-1996 Position: Hydraulic structure engineer  
Project Name: Survey, Investigation and Design of Embung-embung at Lower Bengawan Solo Basin  
Project Owner: Proyek Induk Pengembangan Wilayah Sungai Bengawan Solo  
Employer: CV. Sumber Agung Konsultan  
Duration: 6 months (September 1995-February 1996)
- 1995-1996 Position: Hydrologist  
Project Name: Study on the Management of Critical Basins on Java Island  
Project Owner: Departemen Pekerjaan Umum, Direktorat Jenderal Pengairan, Proyek Pembinaan Pengelolaan Sumber Daya Air  
Employer: CV. Sumber Agung Konsultan  
Duration: 5 months (August 1995-January 1996)
- 1994-1995 Position: Computer specialist



- Project Name: Course Works of Waterway Hydraulics  
Project Owner: P.T. PLN, Pusat Pelayanan Enjiniring  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 7 months
- 1994-1995 Position: River and Lake Hydraulic specialist  
Project Name: Study of Controlling and Preserving Lake Environment in Indonesia  
Project Owner: Departemen Pekerjaan Umum, Direktorat Jendral Pengairan, Direktorat Bina Program  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 9 months
- 1994-1995 Position: Computer specialist  
Project Name: Study on Jratunseluna Water Supply System  
Project Owner: Departemen Pekerjaan Umum, Direktorat Jendral Pengairan, Badan Pelaksana Proyek Induk Pengembangan Wilayah Sungai Jratunseluna  
Employer: CV. Sumber Agung Konsultan  
Duration: 8 months
- 1994-1995 Position: Hydraulic structure specialist  
Project Name: Study on Detailed Design of Brackish Fish Pond PIR Typed at Kecamatan Matan Hilir Utara Kabupaten Ketapang Propinsi Kalimantan Barat  
Project Owner: Departemen Pertanian, Direktorat Jendral Perikanan, Bagian Proyek Program Pengembangan Budidaya Tambak  
Employer: PT. Puser Bumi Consultants  
Duration: 6 months
- 1993-1994 Position: Lake and river specialist  
Project Name: Masterplan of Tourism Development for Kalimantan Selatan and Kawasan Kutai Mahakam  
Project Owner: Departemen Pariwisata, Pos dan Telekomunikasi, Direktorat Jendral Pariwisata, Bagian Proyek Study Pengembangan Pariwisata

- Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 6 months
- 1993 Position: Hydraulic specialist  
Project Name: River Serang Flood Control System  
Project Owner: Proyek Pengembangan Wilayah Sungai Jratunseluna  
Employer: P.T. Indah Karya, Semarang  
Duration: 6 months
- 1993 Position: Hydraulic specialist  
Project Name: Study, Mapping and Design of Telomoyo River Basin  
Project Owner: Proyek Serbaguna Kedu Selatan  
Employer: P.T. Barunadri, Semarang  
Duration: 7 months
- 1993 Position: Hydraulic specialist  
Project Name: Study of Utilizing Mulur Dam (Kabupaten Sukoharjo)  
Project Owner: Proyek Irigasi Jawa Tengah  
Employer: C.V. Prima Design, Semarang  
Duration: 5 months
- 1992-1993 Position: Hydraulic specialist  
Project Name: Design Guide: Hydraulic Design of Spillway  
Project Owner: PPE-PLN Pusat  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 4 months
- 1992-1993 Position: Hydraulic specialist  
Project Name: Study on The Impact of Cimanuk River Characteristics on The Safety of Parakan Kondang Power House  
Project Owner: PPMK-PLN Pusat  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 4 months
- 1992 Position: Hydraulic specialist  
Project Name: Manual of Wonogiri Dam Operation  
Project Owner: Proyek Pengembangan Wilayah Sungai Bengawan Sala

- Employer: P.T. Virama Karya  
Duration: 5 months
- 1991-1992 Position: Hydraulic specialist  
Project Name: Water Balance Study of Kambaniru River Basin, Waingapu, East Nusa Tenggara  
Project Owner: Departemen Pekerjaan Umum – Direktorat Jendral Pengairan, P3SA Jakarta  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 8 months
- 1985 Position: Hydraulic-hydrology specialist  
Project Name: Flood Control Study of Lower Progo River Basin, Daerah Istimewa Yogyakarta  
Project Owner: Departemen Pekerjaan Umum  
Employer: Faculty of Engineering, Gadjah Mada University
- 1985 Position: Hydraulic-hydrology specialist  
Project Name: Discharge Control Study of River Komerling, South Sumatera Province.  
Project Owner: Departemen Pekerjaan Umum  
Employer: Faculty of Engineering, Gadjah Mada University
- 1983-1985 Position: Project Engineer of Wave Flume, Coastal Engineering Laboratory, Direktorat Jendral Perhubungan Laut, Yogyakarta  
Project Name: Proyek Pengembangan Pelabuhan Pulau Baai, Bengkulu  
Project Owner: Direktorat Jendral Perhubungan Laut  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 2 years
- 1983 Position: Assistant of hydraulic-hydrology specialist  
Project Name: Study of The Main Drainage System for The City of Yogyakarta  
Project Owner: Bappeda DIY  
Employer: Faculty of Engineering, Gadjah Mada University
- 1981 Position: Hydrologist

Project Name: Study of Landslides at Upper Cimanuk River Basin, West Java  
Project Owner: Proyek Pengembangan Wilayah Sungai Cimanuk  
Employer: Faculty of Engineering, Gadjah Mada University

1980-1981 Position: Assistant of Hydraulic specialist  
Project Name: Tidal Swamp Ricefield Development Project (P4S).  
Project Owner: Departemen Pekerjaan Umum, Direktorat Jendral Pengairan  
Employer: Faculty of Engineering, Gadjah Mada University  
Duration: 2 years

1979-1980 Position: Assistant of hydraulic-hydrology specialist  
Project Name: Study on Wadaslintang Main Drainage System  
Project Owner: South Kedu Multi Purpose Project  
Employer: Faculty of Engineering, Gadjah Mada University

## **CERTIFICATION:**

---

Yogyakarta, 20 Januari 2010

Ir. Djoko Luknanto, M.Sc., Ph.D.  
Laboratorium Hidraulika, JTS FT-UGM  
Komplek Fakultas Teknik  
Jln. Grafika 2, Yogyakarta 55281  
Phone: +62 (0274) 902236, 902237  
Fax: +62 (0274) 519788  
E-mail: luknanto@ugm.ac.id