

CURRICULUM VITAE

PERSONAL

1. Name (phone) : Djoko Luknanto (+62 8122709412)
2. Occupation : Retired Lecturer/research engineer at Civil and Environmental 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. Web : <http://luk.tsipil.ugm.ac.id/> and
<http://luk.staff.ugm.ac.id/>
7. E-mail : Luknanto@ugm.ac.id
luknanto@gmail.com
djoko.luknanto@gmail.com
djoko_luknanto@hotmail.com
djoko_luknanto@yahoo.com
djoko.luknanto@yahoo.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)
4. Retired : 1 November 2021
5. Lecturer : Department of Higher Education Management, School of Graduate Study, Universitas Gadjah Mada

E d u c a t i o n

- 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

F I E L D S O F S P E C I A L I Z A T I O N

- 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.

L A N G U A G E & D E G R E E O F P R O F I C I E N C Y

Javanese	good
Indonesian	excellent
American English	excellent

M E M B E R S H I P O F P r o f e s s i o n a l S o c i e t i e s

- Member of Badan Standar Nasional Pendidikan (BSNP) 2014-2018
- Indonesian Association of Hydraulic Researchers (HATHI, Himpunan Ahli Teknik Hidraulik Indonesia - 1998)
- Indonesian Association of Engineers (PII, Persatuan Insinyur Indonesia - 1998)

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	2011-2014
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	1999-2010
Chairman of The Committee for Development of Information and Communication Technology Based Education, Gadjah Mada University	2003-2010
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 1983-2021
- 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 20th October 2008 – 25th 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

- 2003-now The chief editor of Padepokan Daring (dedicated online learning), <http://ugm.id/luk>.
- 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 102nd 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

- 2024 Position: Water Resources specialist

	Project Name:	Rescue Excavation of Sumberbeji Bathing Pool, Kesamben Village, Ngoro District, Jombang Regency.
	Project Owner:	Cultural Preservation Center Region XI, Ministry of Culture of the Republic of Indonesia.
	Employer:	Individual Consultant
	Duration:	10 calendar days (22 November – 1 December 2024)
2024	Position:	Water Resources specialist
	Project Name:	Basic Design for the Muara Takus Temple Area, Riau Province.
	Project Owner:	Ministry of PUPR, Directorate General of Cipta Karya. Directorate of Residential Area Development Work Unit.
	Employer:	Individual Consultant
	Duration:	60 calendar days (2 September – 15 November 2024)
2024	Position:	Water Resources specialist
	Project Name:	Water Balance in the KHG (Kesatuan Hidrologis Gambut, Peatland Hidrological Unit) of Balangan River - Batangalai River. (Rp350.000.000,-)
	Project Owner:	Badan Restorasi Gambut dan Mangrove (BRGM) RI.
	Employer:	Individual Consultant
	Duration:	90 calendar days (July – August 2024)
2024	Position:	Hydraulic specialist
	Project Name:	Water Balance in the KHG (Kesatuan Hidrologis Gambut, Peatland Hidrological Unit) of Balangan River - Batangalai River. (Rp350.000.000,-)
	Project Owner:	Badan Restorasi Gambut dan Mangrove (BRGM) RI.
	Employer:	Faculty of Engineering, Gadjah Mada University
	Duration:	90 calendar days (July – August 2024)

2024	Position:	Hydrology & Hydraulic specialist
	Project Name:	Special Project: Survey, Investigation, and Design for Optimization of Peatlands in Kapuas Region.
	Project Owner:	Department of Food Crops, Horticulture and Livestock, Central Kalimantan Province.
	Employer:	Center for Land Resources Studies, Gajah Mada University (PUSDI UGM).
	Duration:	90 calendar days (February – May 2024)
2022	Position:	Hydraulic specialist
	Project Name:	Visualization on Management of KHG (Kesatuan Hidrologis Gambut, Peatland Hidrological Unit). (Rp200.000.000,-)
	Project Owner:	Badan Restorasi Gambut dan Mangrove (BRGM) RI.
	Employer:	Faculty of Engineering, Gadjah Mada University
	Duration:	60 calendar days (July – August 2022)
2021	Position:	Hydraulic specialist
	Project Name:	Water Balance in the KHG (Kesatuan Hidrologis Gambut, Peatland Hidrological Unit) of Kahayan River - Sebangau River. (Rp300.000.000,-)
	Project Owner:	Badan Restorasi Gambut dan Mangrove (BRGM) RI.
	Employer:	Faculty of Engineering, Gadjah Mada University
	Duration:	60 calendar days.
2018	Position:	Hydraulics specialist/Team Leader.
	Project Name:	The Effectivity of Canal Blocking in KHG (Kesatuan Hidrologis Gambut, Peatland Hidrological Unit). (Rp542.000.000,-)
	Project Owner:	Badan Restorasi Gambut (BRG) RI.
	Employer:	Faculty of Engineering, Gadjah Mada University
	Duration:	6,5 months (June – December 2018)

- 2017 Position: Hydraulics specialist/Team Leader.
Project Name: The Construction of Pilot Project on Canal
Blocking at Pulau Padang.
(Rp698.780.500,-)
- Project Owner: Badan Restorasi Gambut (BRG) RI.
Employer: Faculty of Engineering, Gadjah Mada
University
- Duration: 6,5 months (June – December 2017)
- 2017 Position: Hydraulics specialist/Team Leader.
Project Name: Research on Water Resource Management
in Pulau Padang. (Rp. 499.070.000,-)
- Project Owner: Badan Restorasi Gambut (BRG) RI.
Employer: Faculty of Engineering, Gadjah Mada
University
- Duration: 6,5 months (June – December 2017)
- 2003 Position: Hydraulics specialist
Project Name: Water Balance in the KHG (Kesatuan
Hidrologis Gambut, Peatland Hidrological
Unit)
- Project Owner: Badan Restorasi Gambut dan Mangrove
(BRGM) RI.
- Employer: Faculty of Engineering, Gadjah Mada
University
- Duration: 90 calendar days (July – September 2018)
- 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
 Komering, 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
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

