

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
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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
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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
<ul style="list-style-type: none">• 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

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| 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

- 2022 Position: Hydraulic specialist

	Project Name:	Water Balance in the KHG (Kesatuan Hidrologis Gambut, Peatland Hidrological Unit) of Punggurbesar River - Kapuas 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 – September 2022)
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: Employer:	Badan Restorasi Gambut (BRG) RI. 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: Employer:	Badan Restorasi Gambut (BRG) RI. 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: Employer:	JICA, Japan 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: Employer:	Pemerintah Daerah Tingkat II Banyumas 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

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, 26 January 2023

Ir. Djoko Luknanto, M.Sc., Ph.D. (Retired)

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