

PERSONAL INFORMATION

Lugas Raka Adrianto



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POSITION

Early Stage Researcher in EU Project

WORK EXPERIENCE

01/01/2019–Present

EU Researcher/ PhD Candidate

ETH Zurich, Zurich (Switzerland)

- Conducting life cycle assessment (LCA) modelling for remediation and reprocessing of sulfidic mining wastes in Europe (keywords: analytics, python, tableau)
- Proposing recommendation to process designers for sustainable valorization systems

02/09/2019–Present

Visiting Researcher

Helmholtz-Zentrum Dresden-Rossendorf, Freiberg (Germany)

- Performing analysis and prediction of tailings composition through geo statistics (tools: R, sci-kit learn)
- Upscaling novel processes with metallurgical simulation tools and modelling

26/03/2018–05/09/2018

Research Engineer Intern

Electricité de France (EDF), Paris (France)

- Proposed valorization routes for EDF subsidiaries' solid wastes management through multi-criteria assessments
- Investigating techno-economic and environmental assessment (lifecycle) case studies for EDF which regards to its existing resources

22/08/2016–31/08/2017

Senior Student Consultant (Technical)

International Consulting Network (ICON KTH), Stockholm (Sweden)

- Evaluated environmental benefits for electric vehicle company in European/Asian smart cities - (Client: Smart EV manufacturer)
- Estimated financial projection of dark fiber network in NY common providers (Comcast, Time Warner) - (Client: Telco consultancy)

15/04/2015–02/08/2016

Chemical Account Manager

Dow Chemical, Jakarta (Indonesia)

- Handling accounts in South East Asia Countries which contribute to 20% business growth in 2015
- Innovated on technical and business development strategy in six South East Asia countries (Singapore, Malaysia, Indonesia, Philippines, Thailand, and Vietnam) with 288% market share increment through tactical marketing plan
- Identified reverse osmosis (RO) membrane replacement sales potential (worth US\$ 1MM) in Java's residential area

- 06/01/2015–07/04/2015 **Assistant Operations Engineer**
ConocoPhillips, Jakarta (Indonesia)
- Proposed cost-reduction plan for 4 onshore operations waste handling aspect by maximizing equipment lifetime
 - Implemented "Key Performance Indicator" excel-based VBA program to monitor gas plant overall equipment effectiveness
- 13/07/2014–05/12/2014 **Consultant Engineer**
LAPI ITB (Client: WorldBank Group and Pertamina), Bandung (Indonesia)
- Collaborated with large project team to efficiently capture emitted CO₂ from Bojonegara 2x1000 MWe and Sumsel-6 600 MWe planned power station flue gas in Carbon Capture Storage (CCS) project (total investment worth US\$ 7 Billion)
 - Assessed technical feasibility of Indonesia's low rank coal (LRC) conversion to 0.8 MTPA fuelgrade ethanol for future gasoline
- 04/01/2012–13/07/2014 **Teaching Assistant**
ITB Chemical Engineering Department, Bandung (Indonesia)
- Courses: 1) Process Control, 2) Coal Processing and Utilization, and 3) Chemical Engineering Mathematics
- Constructed weekly quizzes/ assignments for students, graded student home works as well as exams
 - Conducted extra learning hours to guide students comprehend course material and be prepared for the next examination

EDUCATION AND TRAINING

- 01/01/2019–Present **PhD in Environmental Engineering** EQF level 8
ETH Zurich, Zurich (Switzerland)
- Relevant work: ecological modelling, life cycle assessment, emission prediction, data science/ analytics
- Supported by Marie Skłodowska-Curie Innovative Training Networks (ITN-ETN) SULTAN
- 05/09/2017–30/09/2018 **Master of Science in Energy Environment** EQF level 7
Ecole Polytechnique, Palaiseau (France)
- GPA: 3.93/ 4.00 (Très Bien)
- Applicable courses: Green house gases challenges, Sustainable strategy and business models, Nature based solutions
- Full Scholarship: EIT Innoenergy Double-degree Scheme with KTH Stockholm
- 22/08/2016–05/09/2017 **Master of Science in Energy Innovation** EQF level 7
KTH Royal Institute of Technology, Stockholm (Sweden)
- GPA: 4.9/ 5.0 (Excellent)
- Applicable courses: Energy and Environment, Advanced renewable energy, Numerical methods
- Represented KTH at Energy Hackathon 2017 in Berlin and secured 1st place
- Full Scholarship: EIT Innoenergy Double-degree Scheme with Ecole Polytechnique
- 14/02/2017–28/07/2017 **Diploma in Management and Entrepreneurship** EQF level 7
ESADE Business School, Barcelona (Spain)
- Winter and Summer Program - In conjunction with CATOLICA Lisbon School of Business and Economics in the previous Autumn 2016 (Lisbon, Portugal): Grade: 8/ 10 (B+)

20/08/2010–14/07/2014

Bachelor of Science in Chemical Engineering

EQF level 6

Institute of Technology Bandung (ITB), Bandung (Indonesia)

Final GPA: 3.75/ 4.00 (Cum Laude, First-tier, Top 5%)

Applicable courses: Process and plant design, Bioenergy topics, Project management, Utility System

Scholarship/ grant: Student Creativity Program (Research Fellowship), Academic Achievement Excellence (Student Scholarship)

PERSONAL SKILLS

Mother tongue(s) Indonesian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C2	C1	C1
IELTS					
French	B2	B1	B2	B1	B1
Langue Française à l'école polytechnique (A)					
German	B1	B1	A2	A2	A2
Migros Klubschule und Sprachenzentrum der ETH Zurich					

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

- excellent communication and coordination skills attained through sales & marketing experience
- good oratorical and pitching skills from field lead commander experience in college

Organisational / managerial skills

- prime team-leading skills, gained during the vice chairman experience by organizing three divisions consisting of 30 members
- valuable team-player by acting as delegate for massive chemical engineering coordination event across whole nation (35 universities)

Job-related skills

- exceptional analytical and critical thinking, acquired during teaching experiences and simulations
- positive attitude and open-minded adaptability in multicultural environment, gained from engineering competition, social projects, and cross-business collaboration

Digital skills

- Programming: Matlab, Python, R, LaTeX, HTML + CSS (Web development)
- Data analytics and visualization: Excel (advanced), Visio, Tableau, PowerBI, ggplot + matplotlib
- Design: Adobe Illustrator, InDesign, Wondershare Filmora (video editing), PowerPoint (advanced)

ADDITIONAL INFORMATION

Honours and awards

- 1st Winner of Danfoss' Smart Heating Case and 1st Winner of Business Category by Jury DENEFF (German Industry Initiative) Energy Efficiency Hackathon
- 1st Place in "Entrepreneurship in a Week: From Dawn to Pitch" – "CoConscious" Project Católica Lisbon School of Business and Economics
- 1st Winner of Regional (ASEAN) Plant Design Competition – Biofuel for Residential Cooking South East Asia Chemical Engineering Challenge 2014
- Academic Excellence Fellowship by Maintaining GPA > 3.50 in Consecutive Years Bandung Institute of Technology Students Foundation