

## Curriculum Vitae

**Name : Arif Kurnia Wijayanto, M.Sc**

(date of birth: July 21<sup>st</sup> 1990)

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### **Address**

Environmental Research Center  
Institute for Research and Community Development  
Bogor Agricultural University  
Gedung PPLH It 4  
Kampus IPB Darmaga  
Phone : +628111190809  
Email : akwijayanto@apps.ipb.ac.id  
akwijayanto@gmail.com  
Skype ID : akwijayanto@live.com

### **Key Qualifications:**

Researcher staff in the Environmental Research Center, Institute of Research and Community Development, Bogor Agricultural University. The duty is to manage IT infrastructure for various online scientific journal, develop and manage online system for LAPAN-IPB Satellite (LAPAN A3).

I have contributed to several research & projects activities related to the information technology for agriculture and natural resources management. The papers were presented in seminar and published in National/International Journals indexed by Scopus.

### **Education:**

2008-2012 : Faculty of Agricultural Engineering and Technology, Bogor Agricultural University.  
Study interest: Informatics engineering for agriculture  
Titles : Sarjana Teknologi Pertanian (S.TP)

2013-2016 : Master's program in IT for Natural Resources Management, Bogor Agricultural University  
Study interest: GIS-based Decision Support System and Expert System for Natural Resources Management  
Titles: Magister of Science (M.Sc)  
CGPA: 3.87/4.00

### **Languages:**

Language	Speaking	Reading	Writing	Certification
Indonesia	Good	Good	Good	-
English	Good	Good	Good	ITP-TOEFL 540

### **Computer skills:**

Microsoft Office (Word, Excel, Powerpoint, Visio, Access), CAD (AutoCAD, Solidworks, Catia), SQL (PostgreSQL, MySQL), GIS (ArcGIS, QuantumGIS), Web-GIS (PostGIS, Geoserver, Mapserver, Leaflet, Openlayers), Programing language (HTML+CSS, Javascript, PHP, jQuery, C, Basic), Matlab

**Certification:**

Year	Skills	Issued by
2018	Geographic Information System (GIS) Level 6: Analyst Registration number: 02.19032018/SIG6/LSTPMPN	Lembaga Sertifikasi Profesi (LSP) MAPIN

**Employment Record:**

Year	Position and Duty
2011	Internship student at PT Hindoli (a Cargill company), Musi Banyuasin, South Sumatera. Learn the implementation of management information system for CPO production, from pre-harvest to post-harvest.
2010 - 2012	Coordinator of Web and Multimedia Design in Engineering Design Club (EDC), Department of Mechanical and Biosystem Engineering, Bogor Agricultural University. Responsible for managing web design division activities as scheduled on the annual plan and also coordinating the crews.
2016 - present	Researcher (IT and GIS/RS staff) in the Center for Environmental Research, Institute of Research and Community Development. Manage IT infrastructure for various online scientific journal, develop and manage online system for LAPAN-IPB Satellite (LAPAN A3).
2018	Expert team of Dynamics System Modelling, PT Geospasial Infodinamika (GeoID). In the project of Development of spatial dynamics model of Kawasan Ekonomi Khusus (KEK) Sorong, Geospasial Information Agency/Badan Informasi Geospasial (BIG). Develop spatial dynamics model to predict the effect of Special Economic Zone / Kawasan Ekonomi Khusus (KEK) Sorong to its regional development.

**Teaching Record:**

Year	Position and Course Name
2010	Laboratory Teaching Assistant of Engineering Drawing for undergraduate student in Department of Mechanical and Biosystem Engineering, Bogor Agricultural University. Held the laboratory practice for Engineering Drawing lecture.
2011	Laboratory Teaching Assistant of Agriculture Environment and Structure for undergraduate student in Department of Mechanical and Biosystem Engineering, Bogor Agricultural University. Held the laboratory practice for Agriculture Environment and Structure lecture.
2011	Mentor in Recognition and Mentoring Program (RAMP) Bogor Agricultural University. Responsible for guiding the participant in preparing the project and presentation.
2012	Lecturer Assistant of Engineering Programming for undergraduate student in Department of Mechanical and Biosystem Engineering, Bogor Agricultural University. Assist the lecturer to hold the in-class lecture of engineering programming and evaluate the student task.
2015	Laboratory Teaching Assistant of Introduction to Programming for graduate student in IT for Natural Resources Management. Held the laboratory practice for Introduction to Programming for natural resources management lecture.

Year	Position and Course Name
2016	Laboratory Teaching Assistant of Introduction to GIS and RS for graduate student in Natural Resources and Environmental Management, Bogor Agricultural University. Held the laboratory practice for Introduction to GIS and RS lecture.
2017	Laboratory Teaching Assistant of Remote Sensing for graduate student in IT for Natural Resources Management. Held the laboratory practice for Remote Sensing for natural resources management lecture.
2018	Laboratory Teaching Assistant of Remote Sensing for graduate student in IT for Natural Resources Management. Held the laboratory practice for Remote Sensing for natural resources management lecture.
2018	Laboratory Teaching Assistant of Land Geometry and Regional Mapping, Department of Forests Management, Faculty of Forestry, Bogor Agricultural University.

### **Selected Project**

Year	Country/Project	Position	Funded by
2013 - 2014	Development of expert system for broiler management in closed house	<i>Research assistant</i>	BOPTN
2016 - 2017	Rearrangement of Environment Quality Index ( <i>Indeks Kualitas Lingkungan Hidup, IKLH</i> )	<i>GIS &amp; Remote Sensing Assistant</i>	Ministry of Forestry and Environment
2016	Arrangement of adaptation for climate change vulnerability planning in Kabupaten Indragiri Hilir, Riau Province	<i>GIS &amp; Remote Sensing Expert</i>	Badan Lingkungan Hidup Daerah, Kabupaten Indragiri Hilir, Riau Province
2017 - present	Forest2020, an international research project funded by UK Space Agency	<i>Researcher</i>	UK Space Agency
2018	Research grant from Osaka Gas Foundation of International Cultural Exchange (OGFICE): The Characteristic of Spectral Reflectance of LAPAN-IPB (LAPAN-A3) Satellite and Landsat 8 over Agricultural Area in Probolinggo, East Java	<i>Principal investigator / Team leader</i>	Osaka Gas Foundation of International Cultural Exchange (OGFICE)
2018-present	Development of spatial-based recommender of fertilizer for oil palm. Research collaboration with PT Pupuk Kaltim	<i>Web developer</i>	PT Pupuk Kaltim
2018-present	Integrated Water Management System at KHG Merang-Ngirawan	<i>System developer</i>	Kelola Sendang / ZSL
2019-present	Development of National Monitoring System for Forests Land Cover dan Strategic Commodity for Sustainable Landscape Development	<i>Researcher, WebGIS &amp; mobile application developer</i>	UNDP

## **Training**

<b>Year</b>	<b>Training Name</b>	<b>Hosted by</b>
2016	ArcGIS Platform Technical Workshop	PT Esri Indonesia
2017	EO Lab web mapping course	Ecometrica, UK
2018	Hectare Indicators training	Ecometrica, UK
2018	ISO 9001:2015	Cevral Consulting

## **Research Interest:**

- GIS and remote sensing technology, especially for agriculture and natural resources management
- Web technology, especially for agriculture and natural resources management
- Decision Support System (DSS), Expert System (ES), Artificial Intelligent (AI)
- Knowledge Management System for Agriculture & Precision Agriculture
- Monitoring and control

## **Publication**

### **(2019)**

#### **1. The Characteristic of Spectral Reflectance of LAPAN-IPB (LAPAN-A3) Satellite and Landsat 8 over Agricultural Area in Probolinggo, East Java**

Unpublished, presented at The 5<sup>th</sup> International Symposium on LAPAN-IPB Satellite 2018. Will be published on IOP Conference Series: Earth and Environmental Sciences (EES)

Authors: Wijayanto, A K; Yusuf, S M; Pambudi, W A

### **(2018)**

#### **1. Identifying Areas Affected by Fires in Sumatra Based on Time Series of Remotely Sensed Fire Hotspots and Spatial Modeling**

Published, Journal of Natural Resources and Environmental Management (JPSL), Vol 8 No 3

Authors: Setiawan, Y; Prasetyo, L B; Pawitan, H; Permatasari, P A; Suyamto, D; Wijayanto, A K

#### **2. Development of Indonesia National Forests Monitoring System using Geonode as Opensource Platform**

Authors: Wijayanto, A K; Hudjimartsu, S A; Prasetyo, L B; Setiawan, Y

Unpublished, presented at The 39<sup>th</sup> Asian Conference of Remote Sensing, Kuala Lumpur, Malaysia, October 2018

#### **3. Impacts of Climate Change on Oil Palm Suitability in Borneo**

Authors: Suyamto, D; Condro, A A; Prasetyo, L B; Setiawan, Y; Wijayanto, A K

Unpublished, presented at The 1<sup>st</sup> NASA LC/LUC SARI Meeting, Quezon City, Philippines, May 2018

#### **4. Combining Projective Geometry Modelling and Spectral Thresholding for Automated Cloud Shadow Masking in Landsat 8 Imageries**

Authors: Suyamto, D; Prasetyo, L B; Setiawan, Y; Wijayanto, A K

Published in IEEE Xplore, 2017 European Modelling Symposium (EMS), Manchester, 2017

**(2017)**

**1. Classification Model for Forest Fire Hotspot Occurrences Prediction using ANFIS Algorithm**

Authors: Wijayanto, A K; Sani, O; Kartika, N D

Published in IOP Conference Series: Earth and Environmental Sciences (EES)

**(2016)**

**1. Modeling Ammonia Dispersion using GIS and Computational Fluid Dynamics to Formulate Separation Distance Factor of Broiler Closed House Farm Development in Indonesia**

Authors: Wijayanto, A K; Seminar, K B; Afnan, R

Published in The 1<sup>st</sup> Geoplanning International Conference 2016 proceedings

**(2015)**

**1. Development of Mobile-Based Spatial Expert System for Selecting Broiler Closed House Farm Location**

Authors: Wijayanto, A K; Seminar, K B; Afnan, R

As final thesis of Master of Science in IT for Natural Resources Management IPB

**2. Mobile-based Expert System for Selecting Broiler Farm Location Using PostGIS**

Authors: Wijayanto, A K; Seminar, K B; Afnan, R

Published in TELKOMNIKA Journal (indexed by Scopus)

**3. Suitability Mapping for Broiler Closed House Farm Using Analytical Hierarchy Process and Weighted Overlay with Emphasize on Environmental Aspects**

Authors: Wijayanto, A K; Seminar, K B; Afnan, R

Published in International Journal of Poultry Science (IJPS, Indexed by Scopus)

**(2013)**

**1. A Remote Monitoring System of Broilers' Behavior in a Multi-agent Broiler Closed House System**

Authors: Seminar, K B; Afnan, R; Solahudin, M; Wijayanto, A K; Arifin, M Z; Fatikhunnada, A

Published in the proceedings of The 3rd International Conference on Adaptive and Intelligent Agroindustry (ICAIA) 2015

**2. Visual-based Study of Broiler Behavior in Closed House**

Authors: Wijayanto, A K; Seminar, K B; Afnan, R

Published in the proceedings of National Seminar of Himpunan Informatika Pertanian Indonesia (HIPI), Bogor, 2013

**Referee:**

**Prof. Dr. Ir. Kudang Boro Seminar, M.Sc**

Dean, Faculty of Agricultural Engineering and Technology  
Bogor Agricultural University

Dramaga Campus, West Java  
Indonesia

Tel: (0251) 8623026

E-mail: kseminar@apps.ipb.ac.id

**Dr. Hefni Effendi, M.Phil**

Head, Environmental Research Center  
Bogor Agricultural University

Dramaga Campus, West Java  
Indonesia

Tel: (0251) 8621262

E-mail: hefni.effendi@yahoo.com

**Prof. Lilik Budi Prasetyo, M.Sc**

Faculty of Forestry  
Bogor Agricultural University

Dramaga Campus, West Java  
Indonesia

Tel: (0251) 8621677

E-mail: lbprastdp@apps.ipb.ac.id

Bogor, January 2019

A handwritten signature in black ink, appearing to be 'Arif Kurnia Wijayanto', with a long horizontal stroke extending to the left.

Arif Kurnia Wijayanto, M.Sc