



IRFANS MAULANA FIRDAUS

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EDUCATION

Institut Teknologi Bandung (ITB)

Master of Science (M.Sc) Aug 2021 – now

Major : Earth Science (Atmospheric Science) Faculty of Earth Science and Technology, ITB

Thesis : -

Relevant Coursework : Earth Data Analysis, Atmospheric Sciences, Atmosphere Dynamics, Monsoon Meteorology

Bachelor of Science (B.Sc) Aug 2015 – Oct 2019

Major : Meteorology Faculty of Earth Science and Technology, ITB

CGPA : 3.86 out 4.00

Final Project : Spatiotemporal Variation of Mesoscale Convective System Type Persistent Elongated Convective System (PECS) in Indonesia

Relevant Coursework : Applied Statistics, Python for Earth Science, Meteorological Data Analysis, Numerical Weather Prediction, Hydrometeorological Modeling, Weather Experiment and Simulations.

GRANTS AND AWARDS

Awardee of Indonesia Endowment Fund for Education (LPDP) PK-175 Aug 2021 – Aug 2023

LPDP (Lembaga Pengelola Dana Pendidikan), Kemenkeu RI Indonesia

First Winner Hackathon, Hack4Resilience Jun 2020

World Startup Netherland

Atmos FC-19 Team made “Waktu Tani”. “Waktu Tani” is dashboard system via website that helps government and farmer in terms of crop distribution and crop calendar, got first winner for Indonesia (online competition).

Dean’s Award Aug 2015 – Dec 2018

Faculty of Earth Science and Technology, ITB Bandung, Indonesia (ITB)

Got Dean’s Award for 7 semesters (with GPA greater than 3.75/4.00 without C, D, and E grades).

The Best Student in Meteorology Study Program Aug 2018

Institut Teknologi Bandung Bandung, Indonesia (ITB)

Awarded from Rector of Institut Teknologi Bandung for student who has the highest CGPA for the batch.

The Outstanding Student in Meteorology Study Program Mar 2018

Meteorology, ITB Bandung, Indonesia (ITB)

Awarded from Head of Meteorology Undergraduate Program for student with excellent academic and non-academic activity.

WORK EXPERIENCES

Research Assistant Feb 2022 – now

Hydrometeorology Team, CARI!

Comprehensive Multi-hazard Vulnerability and Risk Assessment (CMVRA) Project in Attapeu, Laos DPR Responsibilities:

- Made sure the progress of the project is done as a lead the research assistants.
- Conducted the storm hazard analysis: wind analysis and precipitation analysis.

- Research Assistant** Jul 2021 – Dec 2021
Disaster Risk Assessment of Eastern and Western Indonesia Project
Indonesia
Responsibilities:
- Conducted the extreme weather analysis: precipitation analysis.
- Academic Assistant of Meteorology Undergraduate Study Program** Jul 2021 – Dec 2021
Meteorology, ITB
Indonesia
Responsibilities:
- Helped the Meteorology lecturer about the assessment, student's task, and practicum.
- Research Assistant** Feb 2021 – Sept 2021
PT Astra Graphia Information & Technology
Jakarta, Indonesia
Responsibilities:
- Built a timeseries model for the user's use-cases. Compared some timeseries models to get the best model, analyzed the models, and implemented it in the user's use-cases.
 - Upgraded text-processing model for new case in PySpark.
- Artificial Intelligence Engineer** Nov 2019 – Jan 2021
PT Astra Graphia Information & Technology
Jakarta, Indonesia
Responsibilities:
- Analyzed job's user and designed flow algorithm for automation.
 - Built more than 30 Robot Process Automation (RPA) with Python Language based on a flow algorithm. The RPA helped users to save time until 70%.
- Weather Forecaster** Sep – Nov 2019
PT Inovastek Glomatra Indonesia
Bandung, Indonesia
Responsibilities:
- Maintained weather server and run Weather Research and Forecasting (WRF) Model on the server for research and applications.
 - Developed weather prediction based on WRF Model and other output predictions which available online.
 - Interpreted output of WRF and created weather information for some events in Bandung.

UNIVERSITY SERVICE EXPERIENCES

- Coordinator Assistant of Climate Change B Course** Jul – Dec 2021
Department of Meteorology, ITB
Bandung, Indonesia
Climate Change B Course is an elective course in Meteorology Department that opened for other student who are not Meteorology student.
Responsible:
- Coordinated the course assistants and helped the lecturer in class.
- Practical Assistant of Climate Change A Course** Jul – Dec 2021
Department of Meteorology, ITB
Bandung, Indonesia
Climate Change A Course is an elective course in Meteorology Department that opened particularly for Meteorology student
Responsible:
- Taught the students in practicum about climate model: EBM and Plasim model.
- Field Assistant of Field Course** Jul – Dec 2021
Department of Meteorology, ITB
Bandung, Indonesia
Field Work Course is an elective course in Meteorology in which students do an observation in certain places
Responsible:
- Guided and coached students about field observation: Set and operated Automatic Weather Systems (AWS)

Practical Assistant of Numerical Weather and Prediction I and II

Aug 2018 – May 2019

Department of Meteorology, ITB

Bandung, Indonesia

Numerical Weather Prediction Method I and II is a course in Meteorology that studies weather prediction through WRF Model

Responsible:

- Performed and developed an algorithm in program numerical weather prediction
- Taught students on numerical weather prediction software (WRF – Weather Research and Forecasting) in server
- Built programs using Python to interpret and visualize WRF output data
- Evaluated with the lecturer about the students' presentation performance

Practical Assistant of Numerical Method in Meteorology

Jan – May 2018

Department of Meteorology, ITB

Bandung, Indonesia

Numerical Method in Meteorology is a course in Meteorology that studies basic numeric solution for model

Responsible:

- Performed and modified methods of differential and integrals with a numeric solution.
- Applied numeric solution to the linear equation and simple application of the numeric solution

Lecture Assistant of Introduction of Engineering and Design

Jan 2018 – May 2018

Department of Meteorology, ITB

Bandung, Indonesia

Numerical Method in Meteorology is a course in Meteorology that studies basic numeric solution for model

Responsible:

- Assisted two groups of students to make a project with design process principle and problem-solving process: Rainwater Harvesting on public space (product)

LEADERSHIP EXPERIENCE

Expeditor and Treasure

Apr - Aug 2019

Ekspedisi Maritim dan Pesisir Indonesia ITB

Bandung, Indonesia (ITB)

Ekspedisi Maritim dan Pesisir Indonesia (EMPI) ITB is an expedition under ITB that gives a chance for ITB's students to explore a hidden place. EMPI ITB 2019 chose Pagerungan Kecil Island, Jawa Timur as a "hidden place"

- Became one of 23 selected expeditor from ITB students who made an expedition to Pagerungan Kecil Island (https://issuu.com/empi2019/docs/lentera_di_tengah_samudra)
- Created cashflow and managed money for the expedition.

Secretary-General

Mar 2018 - May 2019

HMME "Atmosphaira" ITB

Bandung, Indonesia (ITB)

HMME "Atmosphaira" ITB is a Meteorology Student Organization where Meteorology students can learn leadership, organization, and other skills

Responsibilities:

- Became vice president in HMME "Atmosphaira" ITB and gave some advice or choices for the leader.
- Arranged and managed a timeline for all activities in HMME "Atmosphaira" ITB could work well.
- Chaired and directed 3 divisions: Human Resource, Secretary, and Media, Communication, Information Division.

Secretary of Coor. Ministry Media, Communication, and Information

May - Dec 2017

Kabinet "Suarasa" ITB

Bandung, Indonesia (ITB)

Responsibilities:

- Documented all notes for every meeting and managed all archives in ministry.
- Directed and chaired 4 secretary ministries.

PRESENTATION

2nd International Conference on Tropical Meteorology and Atmospheric Sciences

Mar 2021

Presenter

Jakarta, Indonesia

Presented undergraduate research: Spatiotemporal Variation of Mesoscale Convective System Type Persistent Elongated Convective System (PECS) in Indonesia

PUBLICATION

1. I. M. Firdaus dan N. J. Trilaksono (2021): Spatiotemporal Variation of Mesoscale Convective System Type Persistent Elongated Convective System (PECS) in Indonesia (Vol. 893). doi: 10.1088/1755-1315/893/1/012013 (Proceeding)

TECHNICAL SKILL

Programming Languages	: Python, R Language, PySpark
Computer Skills	: IBM SPSS, Microsoft Office, QGIS Software
Other	: Robot Framework, WRF-ARW

LANGUAGE

Indonesian	: Native; Mother Language
English	: Advance
Korean	: Beginner – Intermediate

Updated on June 05th, 2022