

PERSONAL DETAILS

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Dr. Ir. ARI
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ADDRESSES

☐ UNIVERSITY:

University of Riau
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☐ DATE OF BIRTH: 27th January 1968

HOME:

Jl. Indra Pahlawan no. 23
Pintu Angin
Pekanbaru 28412, Riau
Indonesia

EDUCATION

1999-2002 PhD in Civil Engineering University of Manchester Institute of Science and Technology (UMIST), Manchester, UK

☐ PhD -Doctor Certificate

1997-1998 MSc in Civil Engineering and Construction, UMIST, UK

☐ MSc Certificate.

1986-1993 BSc in Civil Engineering, University of Sam Ratulangi

☐ Ir. or BSc Certificate (Sarjana S1)

PROFESSIONAL EXPERIENCE

2000-2015 Association Members

- ☐ Universal Association of Civil, Structural and Environmental Engineers with the membership ID no. SNM10100051150 as a Senior member, year 2015.
- ☐ Construction Service Development Board (LPJK) as Highway Engineer, membership number 1.2.202.3.102.04.1040089 and registered in ASTTATINDO no. 14.ASTTATINDO.14.17007, year 2014.
- ☐ Construction Service Development Board (LPJK) as Environmental Engineer, membership number 1.5.501.3.102.04.1040089, and registered in ASTTATINDO no. 14.ASTTATINDO.14.17007, year 2014.
- ☐ Lecturers: Airport Engineering, Transportation, Risk Analyses, Construction Management, Cost Estimate, and Decision Support Systems.

1993-2018 Managing of various Educational Institutions and Projects

- ☐ Dean of Engineering Faculty, University of Riau, Pekanbaru, Riau, Indonesia, 2017-up to now.
- ☐ Founder of Pondok Pesantren Khairul Ummah Foundation (Pembina Yayasan), Air Molek, Provinsi Riau, 2002 up to now.
- ☐ Head Office of Information Technology Unit (Kepala Pusat TI), Engineering Faculty, University of Riau, 2013-2014.
- ☐ Head Office of Computer Centre (Kepala Pusat Komputer), the University of Riau, 2006-2009.
- ☐ Vice Director of Global Development Learning Network (GDLN), University of Riau, 2005-2006.
- ☐ A Coordinator of the Indonesian Higher Education Networking (INHERENT) the University of Riau, 2006-2009, under the Director General Higher Education of Indonesia Project.
- ☐ An assessor for the Development of International Airports in Indonesia under the Ministry of Environment of Indonesia, 2007-up to now.
- ☐ etc.

Research Interests and Research Grants:

1997-2018

- A research Grant Program of Insentif Riset Sistem Inovasi Nasional (Insinas), 2018, Developing An Integrated Early Warning and Quick Respond in Mitigating Peatfire Disaster (Peringatan Dini, Siaga Darurat Dan Respon Cepat Kebakaran Lahan Gambut Tropis Dalam Membentuk Desa Tangguh Bencana Kebakaran) in Indonesia. Financially Supported by the Directorate General Higher Education DIKTI.
- A research concerning Transportation Safety and Obstacle Limitation Surface (KKOP) Airport, 2002-2018.
- A Research concerning: Mitigating of Peatland Fires Disasters in DAS Siak, Riau Province, Financially Supported by the Directorate General Higher Education DIKTI (HIKOM Grants), 2015-2016 and Balitbangda, Riau Province, 2016.
- A Research concerning: Development of Early Warning Systems for Peat Forest, based on Sensor and Electromagnetic Pulse, Financially support by Research and Development Board, Province of Riau, 2014.
- A Research of Mangrove Carbon Stocks in Indragiri Hilir, Indonesia, Financially support by Research and Development Board, Province of Riau, 2013.
- Research Grants Award from “Strategis Nasional-Stranas, 2009” concerning Mitigation of Rockfall Hazard Utilizing RHRS Methods”, Directorate of Higher Education, Indonesia.
- Research Grants Award from “Hibah Kompetensi Proyek, 2010-2012” concerning Developing of Early Warning Systems to the Rockfall Risk Hazard Areas in Sumatra”, Directorate of Higher Education, Indonesia.
- Research Grants Award from “A3 Project”, Civil Engineering Department, Engineering Faculty, University of Riau, 2008.
- Sustainability of Urban Water Supply Schemes, financially supported from the Republic Indonesia Governments, and Korea.2012-2014.
- Etc.

1999-2018

Recent Publications:

- Combination of a Coastal Vulnerability Index (CVI) and social economic approaches in prioritizing the development of Riau Coastlines, Indonesia, Ari Sandhyavitri1, Ferry Fatnanta, Rizki Ramadhan Husaini, and Imam Suprayogi, MATEC Web of Conferences 276, 02006 (2019) <https://doi.org/10.1051/mateconf/201927602006>, ICAnCEE 2018
- Mitigation of peat fires utilizing groundwater supply, Ari Sandhyavitri 1, Bambang Sujatmoko , Muhammad Yusa, and Vito Charly, MATEC Web of Conferences 276, 02006 (2019) <https://doi.org/10.1051/mateconf/201927602006>, ICAnCEE 2018
- Green technology as a strategy in managing the black spots in Siak Highway, Indonesia, Sandhyavitri, A., Wira, J., Martin, A.2018, IOP Conference Series: Materials Science and Engineering
- The roles of weather modification technology in mitigation of the peat fires during a period of dry season in Bengkalis, Indonesia, Sandhyavitri, A., Perdana, M.A., Sutikno, S., Widodo, F.H. 2018, IOP Conference Series: Materials Science and Engineering
- Mapping and Simulating Watershed Performances Based on GIS, Remote Sensing, and SWAT , Universal Journal of Geoscience 6(1): 13-23, 2018 <http://www.hrpub.org>, DOI: 10.13189/ ujj.2018.060103, USA.
- Risk and Uncertainty in the Medan-Binjai Toll Road Infrastructure Project, Indonesia Based on the Stochastic Analyzes, EJERS, European Journal of Engineering Research and Science, Vol. 3, No. 6, June 2018
- Use of Electrical Resistivity Test to Estimate Carbon Storage of Tropical Peat Deposit (Case Study of Bengkalis Island), International Conference on Advance Civil and Environmental Engineering (ICANCEE, 24-25 October, 2018, Sanur, Bali), Scopus Indexes.
- Early Warning Systems Using Fire Sensors, Wireless, and SMS Technology, ICONEEI, 16-17 October 2018, Batam, Scopus Indexes.

- Net-Wok Analyses in Optimizing the Numbers of Peatfire Brigade Posts, Am Accredited National Journal, Media Komunikasi Teknik Sipil, ISSN 0854 1809, 2018.
- Three Strategies Reducing Accident Rates at Black Spots and Black Sites Road in Riau Province, Indonesia, Transportation Research Procedia Science Direct, 2352-1465, Published by Elsevier B.V, 2017. Scopus Indexes.
- Investigation of Mangrove Biomass Potential in Indragiri Hilir Wetlands, Indonesia, International Journal of Environmental Science and Development IJESD Volume 7, Number 12. 2016, ISSN: 2010-0264, DOI: 10.18178/IJESD.
- Prioritization of Irrigation Areas Based on the Analytical Hierarchy Process (AHP) at the Rokan Hulu Regency, Riau, Indonesia, International Journal of Engineering and Science Applications, IJEScA, vol. 3, 1, May 2016, ISSN: 2406-9833 @2016 PPs-UNHAS.
- Shoreline Change Analysis of Peat Soil Beach in Bengkalis Island Based on GIS and RS, International Journal Engineering and Technology, Vol. 9, No.3, June 2017.
- Development of Erosion Risk Map Using Fuzzy Logic Approach, MATEC Web of Conferences, 04021 101 (2017) DOI:10.1051/ mateconf/ 201710104021.
- Early Warning Systems for Underground Peatland Fire Hazards Based On Heat Sensors and Wireless Technologies, International Conference on Technology Innovation, and Society (ICTIS) 2016, on 20th-21st July 2016, Padang.
- The Changes of Land Use Pattern Affect to the Availability of Water Resources in Siak Watershed, Riau Province, Indonesia. Proceeding of the 14th International Conference on QIR, 2015, Lombok, 10-13 Augustus 2015. Trans Tech Periodicals published by Trans Tech Publications Ltd.
- Simulating and Mitigating of Rockfall Hazards in Amstetten District, Austria, Proc. of The Third Intl. Conf. on Advances in Civil, Structural and Environmental Engineering - ACSEE 2015, Copyright © Institute of Research Engineers and Doctors, USA, ISBN: 978-1-63248-065-1 doi: 10.15224/ 978-1-63248-065-1-113.
- Identification and Mitigation of Rockfall Hazard Zone International Journal of Research Engineering and Technology (IJERT), Volume 3, Issues 11, November 2014, ESRA.
- Developing and Selecting Slope Stabilization Techniques in Managing Slope Failure, Jurnal Teknik Sipil, Volume 12 Nomor 4, Juni 2014, Univ. Atmajaya, Yogyakarta.
- Etc

Patents and Copyrights

- 1 Sistem Deteksi dan Peringatan Dini Kebakaran Permukaan dan di Dalam Tanah Gambut, 10 November 2015 Paten P002010531297.
- 2 Teknologi Komposit Laminasi Kayu untuk Konstruksi Jembatan Berbasis Kearifan Lokal Melayu, Indonesia, 30/11/201, P00201608244.
- 3 Respon Cepat Pemadaman Kebakaran Lahan Gambut Tropis Secara In-Situ Melalui Pengembangan Teknologi Alat Gali Air Portable Mini, 17/03/2017, P00201701703,
- 4 Five Major Elements for Sustainability of Urban Water Supply Projects, 29 Januari 2016, HAKI C00201600171
- 5 Mitigasi Banjir dan Kebakaran, 29 Januari 2016, HAKI C00201600172
- 6 Sistem Deteksi Kebakaran Lahan Gambut, 06 Juni 2016, HAKI C00201602113
- 7 Estmasi Potensi Cadangan Karbon Hutan Mangrove, 06 Juni 2016, HAKI C00201602112
- 8 Teknologi Mekanisasi Pemupukan Sawit, 16 Desember 2016, HAKI C00201605311
- 9 Sistem Peringatan Dini Kebakaran Lahan Gambut Berbasis SMS Gateway, 16 Desember 2016, HAKI C0020101605307
- 10 Jembatan Kayu Komposit untuk Emergency Bridge, 16 Desember 2016, HAKI C0020105309
- 11 Pemadaman Kebakaran Gambut in Situ, UR Press, Nopember 2017, ISBN 978-979-792-785 1

Keynote Speakers, Invited Speakers, and General Lectures

1. Invited Speakers. Invited Speakers. the International Collaboration Conference on Engineering and Applied Science (ICCEAS 2018) , 24-25 October 2018, Bali. Mitigation of Peat Fires Utilizing Groundwater Supply. Scopus Indexes.
2. General Lecture entitled Mitigating of Peat Land Fires di Faculty of Engineering, University of Yamaguchi, Japan, 06 November 2015.
3. Keynote speaker in the Annual Civil Engineering Seminar 21 November 2015, Pekanbaru, Pekanbaru.
4. Kolikium Mitigating of Peatland Fire Disaster, 22 Februari 2017, Civil Engineering Faculty, Universiti Teknologi Malaysia, Johor, Malaysia.
5. Forum Group Discussion, Peat Fire Mitigation Measures, University of Indonesia, 2017.