

CURRICULUM VITAE



Dr. Ir. KETUT TOMY SUHARI, S.T., M.T., IRSurv.

Surveyor — Lecturer — Researcher

July 6, 2025

Dr. Ir. Ketut Tomy Suhari, S.T., M.T., IRSurv.

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Jl. Karangwido, Perumahan Pesona Mutiara Tidar Blok CA/12C, Malang, Indonesia.

P.103 20 00588/0730059601 (NIP/NIDN in ITN Malang)

1-0374-17 (Licensed Cadastral Surveyor from ATR/BPN, Indonesia)

No. Reg. BIG 689-00511-2025 (Higher Cadastral Surveyor on Behalf of Indonesian Professional Certification Authority)

Scopus ID: 57196485539; ORCID: 0000-0002-1416-1302

Citizenship: Indonesia

Research interests

My research focuses on the integration of geospatial technologies such as LiDAR/Laser Scanning, photogrammetry, GNSS, and UAV-based mapping to support high-resolution 3D modeling and spatial analysis. I am particularly interested in Building Information Modeling (BIM) and Digital Twin development for infrastructure, cultural heritage, land administration systems and smart city applications, with an emphasis on real time 3D geovisualization in virtual and web based platforms like CesiumJS and X3DOM.

Education

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| 2021 – 2025 | Institut Teknologi Bandung – Bandung, Indonesia Doctoral in Geodesy and Geomatics Engineering Mentors: Professors Hassanuddin Z. Abidin, Dr. Asep Yusup Saptari, Dr. Putu Harry Gunawan. <i>GPA: 4.0.</i> |
| 2020 – 2021 | Diponegoro University – Semarang, Indonesia Insinyur/Engineering Profession (Ir.) in Geomatics Engineering Mentors: Dr. Bambang Sudarsono <i>GPA: 3.92.</i> |
| 2018 – 2020 | Institut Teknologi Bandung – Bandung, Indonesia Master of Engineering (M.T.) in Geodesy and Geomatics Engineering Mentors: Dr. Bambang Edhi Leksono, Dr. Asep Yusup Saptari <i>GPA: 3.51.</i> |

2013 – 2017 **Institut Teknologi Nasional Malang** – Malang, Indonesia
Bachelor of Engineering (S.T.) in Geodesy Engineering
Mentors: Hery Purwanto, S.T., M.T. *GPA: 3.29.*

Employment Status

2024 – Present **Coordinator** at Lembaga Sertifikasi Profesi Geospasial Regional Malang, Indonesia

2021 – 2023 **Quality Manager** at Lembaga Sertifikasi Profesi Kadaster, Indonesia

2020 – Present **Senior Lecturer** at Department of Geodesy Engineering, Institut Teknologi Nasional Malang, Indonesia

2020 – Present **Co-Founder/Commissioner** at PT. Amerta Geospasial Indonesia, Bali, Indonesia

2017 – Present **Co-Founder/CEO** at Kantor Jasa Surveyor Berlisensi (KJSB) Ketut Tomy Suhari, Bali, Indonesia.

2017 – 2020 **Coordinator** at Lembaga Sertifikasi Profesi Geospasial Regional Bali, Indonesia

Industry experience

March 2025 – April 2025 **KJSB Ketut Tomy Suhari (Photogrammetry Mapping in ATR/BPN Alor)** – Alor, NTT, Indonesia
As Leader of Cadastral Surveyor, Imagery Process and Analysis, Communication. Ref: Mr. Eduard Alunpah (+628592656555) - KASI I ATR/BPN Kab. Alor.

August 2024 – November 2024 **PT. Amerta Geospasial Indonesia (Photogrammetry and Topography Mapping in Tidar Property)** – Malang, Indonesia
As Coordinator of Pilot Drone and Topography, Ref: Mr. Nyoman Robby Manik Saputra (+6281239343412) - Director PT. Amerta Geospasial Indonesia.

May 2024 – July 2024 **KJSB Jeffry Kotto (Photogrammetry Mapping in ATR/BPN Lumajang)** – Lumajang, Indonesia
As Coordinator of Pilot Drone and Imagery analysis, Ref: Mr. Jeffry Kotto (+6283805030161) - Director KJSB Jeffry Kotto.

- May 2024 – July 2024 **CV. ARKHON ENGINEERING SOLUTION (Photogrammetry Mapping in ATR/BPN Lampung Tengah)** – Lampung Tengah, Indonesia
As Coordinator of Cadastral Surveyor, Ref: Mr. Muhammad Ziyad (+628228543-5486)
- Director CV. ARKHON ENGINEERING SOLUTION.
- September 2023 – November 2023 **KJSB Ketut Tomy Suhari (Photogrammetry Mapping in ATR/BPN Gianyar)** – Bali, Indonesia
As Leader of Cadastral Surveyor, Ref: Mr. I Gede Hendra Eka Saputra (+628786203) - Pejabat Pembuat Komitmen.
- September 2021 – May 2022 **PT. Amerta Geospasial Indonesia (3D Modeling and 3D Mesh Editing)** – Kuala Lumpur, Malaysia
As Coordinator of 3D Modeling and Mesh Editing, Ref: Mr. Nyoman Robby Manik Saputra (+6281239343412) - Director PT. Amerta Geospasial Indonesia.
- March 2020 – June 2020 **KJSB Ketut Tomy Suhari (Quality Control of PTSL ATR/BPN Nganjuk)** – Nganjuk, Jawa Timur, Indonesia
As Leader Team, Ref: Mr. Suprijo - ATR/BPN Nganjuk.
- March 2019 – September 2019 **KJSB Ketut Tomy Suhari (Swakelola of PTSL ATR/BPN Gianyar)** – Gianyar, Bali, Indonesia
As Leader Team, Ref: Mr. Dewa - ATR/BPN Gianyar.
- March 2018 – September 2018 **KJSB Ketut Tomy Suhari (2 & 4 packages of PTSL ATR/BPN Buleleng)** – Buleleng, Bali, Indonesia
As Leader Team, Ref: Mr. Ari - ATR/BPN Buleleng, Indonesia.

Teaching Experience

- Spring 2025 **Lecturer, GE6233: Survei Tambang (Institut Teknologi Nasional Malang)**
Taught surveying principles and techniques for mining applications, including field practices and analysis using GNSS and total station.
- Spring 2025 **Lecturer, GE6238: SIG Terapan (Institut Teknologi Nasional Malang)**
Delivered applied spatial information systems topics for real-world geospatial problem solving using open-source and proprietary GIS tools.
- Spring 2025 **Lecturer, GE4212: Kerangka Kontrol Geodesi (Institut Teknologi Nasional Malang)**
Covered geodetic control networks, adjustment methods, and high-precision geodetic positioning.

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| Spring 2025 | Lecturer, GE6235: Ilmu Hukum Pertanahan dan 3D Kadaster (Institut Teknologi Nasional Malang) Explored legal aspects of land tenure, 3D cadastral models, and spatial rights in multilevel buildings. |
| Fall 2024 | Lecturer, GE3213: Survei GNSS (Institut Teknologi Nasional Malang) Introduced satellite positioning concepts and hands-on GNSS survey techniques for geodetic applications. |
| Fall 2024 | Lecturer, GE7216: Permodelan 3D (Institut Teknologi Nasional Malang) Taught 3D modeling techniques including multipatch, mesh structures, and semantic integration with BIM. |
| Fall 2024 | Lecturer, GE1246: Pemrograman Spasial (Institut Teknologi Nasional Malang) Delivered foundational programming for spatial data processing using Python and geospatial libraries. |
| Fall 2024 | Lecturer, GE7241: Kadaster Kelautan (Institut Teknologi Nasional Malang) Focused on marine cadastre concepts, legal boundaries at sea, and geospatial mapping of maritime zones. |
| Fall 2024 | Lecturer, GE7243: Digital Twin (Institut Teknologi Nasional Malang) Introduced digital twin concepts for smart city and infrastructure modeling using BIM-GIS integration. |
| Spring 2024 | Lecturer, GE2211: Jaring Kerangka Kontrol Geodesi (Institut Teknologi Nasional Malang) Taught control network fundamentals and adjustment computation for precision geodetic networks. |
| Spring 2024 | Lecturer, GE6230: Building Information Modelling (BIM) (Institut Teknologi Nasional Malang) Provided BIM concepts and applications for geospatial modeling and land administration systems. |
| Fall 2023 | Lecturer, GE5223: Pemetaan Matra Laut (Institut Teknologi Nasional Malang) Covered methods of hydrographic surveying and marine spatial data management for coastal areas. |

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| Fall 2023 | Lecturer, GE7234: Model Permukaan Digital (Institut Teknologi Nasional Malang) Delivered digital surface modeling techniques and terrain analysis using remote sensing and GIS. |
| Fall 2023 | Lecturer, GE3213: Kalkulus (Institut Teknologi Nasional Malang) Taught fundamental calculus concepts relevant to spatial measurements and engineering computations. |
| Spring 2023 | Lecturer, GE4217: Pemetaan Matra Darat (Institut Teknologi Nasional Malang) Introduced land surface mapping using terrestrial surveying, laser scanning, and DEM generation. |
| Spring 2023 | Lecturer, GE2211: Jaring Kerangka Kontrol Geodesi (Institut Teknologi Nasional Malang) Covered geodetic control design, network adjustment, and precision measurement techniques. |
| Spring 2023 | Lecturer, GE6230: Building Information Modelling (BIM) (Institut Teknologi Nasional Malang) Discussed advanced BIM integration with geospatial datasets for infrastructure and cadastre. |
| Fall 2022 | Lecturer, GE3216: Survei GNSS (Institut Teknologi Nasional Malang) Delivered GNSS positioning strategies and real-time kinematic applications in field surveys. |
| Fall 2022 | Lecturer, GE7234: Model Permukaan Digital (Institut Teknologi Nasional Malang) Focused on generation and interpretation of DSM, DTM, and CHM models from LiDAR and photogrammetry. |
| Spring 2022 | Lecturer, GE6232: Survei Rekayasa (Institut Teknologi Nasional Malang) Taught engineering survey design and construction layout using high-accuracy geodetic instruments. |
| Spring 2022 | Lecturer, GE4217: Pemetaan Matra Darat (Institut Teknologi Nasional Malang) Discussed land-based surveying techniques, including data collection, processing, and mapping. |

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| Spring 2022 | Lecturer, GE2211: Jaring Kerangka Kontrol Geodesi (Institut Teknologi Nasional Malang) Explored concepts of geodetic datum, reference frames, and network adjustments. |
| Spring 2022 | Lecturer, GE6230: Building Information Modelling (BIM) (Institut Teknologi Nasional Malang) Integrated BIM in geospatial workflows for land and infrastructure management. |
| Fall 2021 | Lecturer, GE5223: Pemetaan Matra Laut (Institut Teknologi Nasional Malang) Delivered lectures on bathymetric mapping, sonar data acquisition, and coastal modeling. |
| Fall 2021 | Lecturer, GE7234: Model Permukaan Digital (Institut Teknologi Nasional Malang) Introduced students to surface reconstruction, elevation modeling, and terrain visualization. |
| Spring 2021 | Lecturer, GE6226: Survei Rekayasa Laut (Institut Teknologi Nasional Malang) Taught offshore and coastal engineering survey methods using echo sounders and GNSS. |
| Spring 2021 | Lecturer, GE6232: Survei Rekayasa (Institut Teknologi Nasional Malang) Focused on detailed topographic and construction surveys using total stations and GPS. |
| Spring 2021 | Lecturer, GE2211: Jaring Kerangka Kontrol Geodesi (Institut Teknologi Nasional Malang) Emphasized practical geodetic network establishment and survey data processing. |
| Spring 2021 | Lecturer, GE6230: Building Information Modelling (BIM) (Institut Teknologi Nasional Malang) Provided foundation on BIM platforms and their use in spatial data management and visualization. |

Editorial and Reviewer Roles

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| 2024 – Present | Editor-in-Chief, INA Surveyor Journal (Ikatan Surveyor Indonesia) |
| 2025 | Reviewer, International Advanced Geospasial And Surveying Conference (i-AGeoS) |
| 2025 | Reviewer, International Journal of Digital Earth (Q1, Taylor & Francis) |

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| 2025 | Reviewer, International Conference on Data Science and Its Applications (Scopus, ICoDSA 2025, Telkom University) |
| 2024 – Present | Editor-in-Chief, Spatial Informatics Journal (ITN Malang) |
| 2024 | Reviewer, International Conference on Data Science and Its Applications (Scopus, ICoDSA 2024, Telkom University) |
| 2023 | Reviewer, International Conference on Data Science and Its Applications (Scopus, ICoDSA 2023, Telkom University) |
| 2022 | Reviewer, Jurnal Teknik: Media Pengembangan Ilmu dan Aplikasi Teknik (Sinta 3, Unjani) |

Research experience

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| June 2025 – Present | <p>Studi Kesesuaian Algoritma untuk Mengetahui Stok Karbon Kawasan Vegetasi Perkotaan dengan Memanfaatkan Citra Satelit</p> <p>ITN Research Grant: Dedy Kurnia Sunaryo, Ketut Tomy Suhari.</p> <p>-</p> |
| May 2024 – May 2025 | <p>Pengembangan Digital Twin untuk Satu Sistem Referensi Kadaster di Indonesia</p> <p>ITN Research Grant: Ketut Tomy Suhari, Dedy Kurnia Sunaryo, Hery Purwanto, Fransiscus Xaverius Ariwibisono, Antonio Heltra Pradana, Ramadhan Bagus Wijayanto, Jusman Prahara, Yustina Cheline J. Owa.</p> <p>An overview of this research project, including objectives, methodology, and key findings, is available here. This study focuses on the development of an integrated cadastral system using digital twin technology to enhance land and property management in Indonesia. The findings demonstrate the potential of geospatial integration in improving data accuracy, transparency, and decision-making processes.</p> |

- May 2022 – May 2023 **Manajemen Informasi Kadaster Dengan Building Information Modelling**
ITN Research Grant: Silvester Sari Sai, Hery Purwanto, **Ketut Tomy Suhari**, Dedy Kurnia Sunaryo, Richardus W. Wo'u, Alvin Ahlumnizar, I Gede Aldy Yoga Suyadnya, Lalu Furqan Arya Wikanda, Riana Budi Utami.
An overview of this research project is available [here](#). This study develops a 3D cadastral query system for the Geodetic Engineering Building at ITN Malang using BIM (IFC standard), integrated with LADM and Brep to support legal queries on rights, restrictions, and responsibilities (3R). The results show the potential of BIM-based systems for sustainable land and property management in multilevel buildings.
- May 2022 – May 2023 **Integrasi BIM dan GIS untuk Pemodelan Informasi Kadaster 3D: Studi Kasus Kampus 1 ITN Malang**
ITN Research Grant: Silvester Sari Sai, Hery Purwanto, **Ketut Tomy Suhari**, Dedy Kurnia Sunaryo, Richardus W. Wo'u, Alvin Ahlumnizar, I Gede Aldy Yoga Suyadnya, Lalu Furqan Arya Wikanda, Riana Budi Utami.
An overview of this research project, including objectives, methodology, and key findings, is available [here](#). This study integrates Building Information Modeling (BIM) and Geographic Information Systems (GIS) to support 3D campus management and Smart City development. Conducted at Campus 1 of ITN Malang, it combines data from orthophotos, laser scanning, and GNSS surveys into an interactive 3D map to improve spatial planning and facility management.

Publications

- 2025 **Enabling digital twin for bridge deformation analysis of flash flood impacts: the concept and implementation using DSLR camera**
Martinus Edwin Tjahjadi, Putu Harry Gunawan, H Hardianto, Ester Priskasari, **Ketut Tomy Suhari**.
Civil Engineering and Architecture.
- 2024 **The Use of iPad LiDAR to Build a Digital Elevation Model in Defining Customary Zones (Case Study of Panglipuran, Bali)**
Asep Yusup Saptari, Ratri Widyastuti, **Ketut Tomy Suhari**, Afnan Dwi Suseno, Andri Hernandi, Rizqi Abdul Haris, Sella Lestari Nurmaulia.
The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences.

- 2024 **Geometric quality of UAV's consumer grade camera: Lessons learnt**
Silvester Sari Sai, Martinus Edwin Tjahjadi, Alifah Norani, **Ketut Tomy Suhari**.
AIP Conference Proceedings.
- 2024 **Developing Digital Interactive Exploration of Historical Places with Blending BIM and Virtual Reality**
Ketut Tomy Suhari, Hery Purwanto, Ratri Andinisari.
The Indonesian Journal of Computer Science.
- 2024 **Integrating Advanced Surveying Technologies and Indigenous Knowledge into 3D Building Information Modeling**
Ketut Tomy Suhari, Asep Yusup Saptari, Hasanuddin Z Abidin, Putu Harry Gunawan.
Civil Engineering and Architecture.
- 2023 **Pemodelan Simulasi Aliran Udara terhadap Bangunan 3d Berbasis CityGML dan Computational Fluid Dynamics**
Aprillia Rahmi Utami, **Ketut Tomy Suhari**, Muhammad Uznir Ujang, Martinus Edwin Tjahjadi.
The Indonesian Journal of Computer Science.
- 2023 **Terrestrial Laser Scanning for 3D Assets Registry**
Ketut Tomy Suhari, Hery Purwanto, Silvester Sari Sai.
The Indonesian Journal of Computer Science.
- 2022 **Studi Literatur Dan Implementasi Pemanfaatan Point Cloud Dalam Rekontruksi Batas Ruang**
Ketut Tomy Suhari, Silvester Sari Sai, Hery Purwanto, Ratri Andinisari, I Gede Aldy Yoga Suyadnya, Riana Budi Utami.
Prosiding SEMSINA.
- 2022 **The Information Technology for Customary Cadastre in Penglipuran Village Using Dynamic BIM**
Ketut Tomy Suhari, Hasanuddin Z. Abidin, Asep Yusup Saptari, Putu Harry Gunawan, Bambang Edhi Leksono, Rizqi Abdul haris.
Software Engineering Perspectives in Systems: Proceedings of 11th Computer Science On-line Conference 2022, Vol. 1.
- 2022 **3D Topography Modeling from Integrating Bathymetric and Aerial Imagery for Sermo Reservoir Monitoring**
Hery Purwanto, **Ketut Tomy Suhari**, Martinus Edwin Tjahjadi, DA Setyawan.
IOP Conference Series: Earth and Environmental Science.

- 2022 **Bridge Structural Deformation Monitoring Using Digital Camera**
Martinus Edwin Tjahjadi, LA Parsamardhani, **Ketut Tomy Suhari**.
IOP Conference Series: Earth and Environmental Science.
- 2022 **Conservation of balinese customary buildings with BIM technology approach**
Ketut Tomy Suhari, Hasanuddin Z. Abidin, Asep Yusup Saptari, Putu Harry Gunawan, Bambang Sudarsono.
IOP Conference Series: Earth and Environmental Science.
- 2022 **Pembuatan model 3D Jalan Raya Bayat untuk keperluan existing menggunakan metode foto udara (UAV) di Klaten**
Dwiki Altito Priambodo, Martinus Edwin Tjahjadi, **Ketut Tomy Suhari**.
Teras Jurnal.
- 2022 **Komparasi Model 3D Jembatan dari Pemotretan Konvergen dan Normal Menggunakan Drone**
Nicolas Alnando, Martinus Edwin Tjahjadi, **Ketut Tomy Suhari**.
Jambura Geoscience Review.
- 2021 **Data Acquisition Techniques on Existing Historical Building Based on Building Information Modeling (BIM) using Close-Range Method in Bali**
Ketut Tomy Suhari, Asep Yusup Saptari, Hasanuddin Z. Abidin.
The 42nd Asian Conference on Remote Sensing (ACRS2021). – [Paper](#)
- 2020 **Investigation Method for Shaded Coffee Plantation Detection using Aerial Photography**
A Tridawati, K Wikantika, AB Harto, MF Ghazali, R Suprihatini, **Ketut Tomy Suhari**.
IOP Conference Series: Earth and Environmental Science.
- 2020 **Implementation of 4D Cadastre Concept for Land Dispute Potential and Solution of Post Natural Disaster in Palu, Indonesia**
Ketut Tomy Suhari, Bambang Edhi Leksono, Irwan Meilano, Putu Harry Gunawan, Nyoman Robby Manik Saputra.
Proceedings FIG Working Week.
- 2019 **Implementation of 3D Cadastre With Indigenous Knowledge Concept of “TRI HITA KARANA” in Bali Island, Indonesia**
Ketut Tomy Suhari, Asep Yusuf Saptari, Bambang Edhi Laksono, Nyoman Robby Manik Saputra, Putu Harry Gunawan.
The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences.

- 2017 **Small ROV Marine Boat for Bathymetry Surveys of Shallow Waters–potential Implementation in Malaysia**
Ketut Tomy Suhari, Hairi Karim, Putu Harry Gunawan, Hery Purwanto.
The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences.
- 2017 **Interpolating Redundant Spatial Data from SHUMOO boat Survey due to the Current Directions of Anyar River**
Putu Harry Gunawan, **Ketut Tomy Suhari**.
2017 International Conference on Control, Electronics, Renewable Energy and Communications (ICCREC).
- 2017 **The Anyar River Depth Mapping from Surveying Boat (SHUMOO) using ArcGIS and Surfer**
Ketut Tomy Suhari, Putu Harry Gunawan.
2017 International Conference on Control, Electronics, Renewable Energy and Communications (ICCREC).
- 2016 **The Small Hydrography Marine Boundary Boat (SHUMOO) for Mapping Bathymetry of Shallow Water Area**
Ketut Tomy Suhari, Kadek Sukma Apriyandika, M Rahmawati.
Proceedings of The 1st Geomatics International Conference (GEOICON).

Honors and scholarships

- 2024 The Youngest Indonesian Registered Surveyor (IRSurv) from IKATAN SURVEYOR INDONESIA.
- 2021 Pratama Professional Engineer (IPP) from Persatuan Insinyur Indonesia (PII).
- 2021 Ganesha Talent Assistantship - Research Group (GTA-RG) for Doctoral Scholarship ITB.
- 2019 Best Poster from GGT 2019 Malaysia)
- 2017 Best Graduate of Geodesy Engineering at ITN Malang)

Talks and tutorials

- June 2025 From Scan to BIM: The Evolution and Future of Indoor Mapping Technologies
Guest Lecturer at Institut Teknologi Nasional (ITENAS) Bandung
Download Slides – Pamphlet/Documentation

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| Mei 2025 | <p>From Raw Data to Reality</p> <p>Speaker in Talk Show XGRIDS Technology in Real World Application by ISI JATIM and APTELLA</p> <p>Download Slides — Pamphlet/Documentation</p> |
| October 2024 | <p>Pemanfaatan Oblique 3D Photogrammetry Menuju Pengembangan Digital Twin di Indonesia</p> <p>Speaker in Web.QS PT. Quantindo Widjaya Adhirajasa</p> <p>Download Slides — Pamphlet/Documentation</p> |
| September 2024 | <p>Workshop Pembelajaran Teaching Factory (TEFA)</p> <p>Speaker in SMKN 1 Nganjuk, Indonesia</p> <p>Download Slides — Pamphlet/Documentation</p> |
| July 2023 | <p>A Digital Twin-based Approach for Cultural Heritage Tourism and Customary Land Administration</p> <p>Visiting Researcher in 3D GIS Lab, University Teknologi Malaysia (UTM), Malaysia</p> <p>Download Slides — Pamphlet/Documentation</p> |
| June 2023 | <p>A Digital Twin-based Approach for Cultural Heritage Tourism and Customary Land Administration</p> <p>Invited Speaker in GISTECH 2023 "Geospasial Intelligence, Elevated by Integration", China National Convention Center, Beijing, Mainland China</p> <p>Download Slides — Pamphlet/Documentation</p> |
| February 2023 | <p>Exploring the Potential of BIM-AR/VR Technology in Managing 3D Cadastral Information, Resolving Land Issues, and Supporting Sustainable Development in Indonesia</p> <p>Speaker at South East Asia Workshop on Geodetic Data Sciences, Geoinformatics and Land Administration (GEO-LAND-SEA) 2023, Yogyakarta, Indonesia</p> <p>Download Slides — Pamphlet/Documentation</p> |
| August 2022 | <p>The Connectivity of Building Information Modeling and Geomatics Engineering</p> <p>Invited Speaker in J-Trafoni 2022 "We learn as deep as ocean, as high as outer space" HIMAGE, ITS, Surabaya, Indonesia</p> <p>Download Slides — Pamphlet/Documentation</p> |
| July 2022 | <p>Geodesy ITN Malang</p> <p>Speaker at Bincang Pagi bersama ITN Malang Live Jossh fm 103.5 Mhz</p> <p>Pamphlet/Documentation</p> |

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| January 2022 | <p>Data Acquisition Techniques for Heritage BIM in Bali, Indonesia</p> <p><i>Invited Speaker at The International Smart City Development and Planning Forum, Feng Chia University (FCU) in Taiwan</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| November 2021 | <p>Implementation of Customary Cadastre with Integrating BIM and GIS on SuperMap Software in Bali, Indonesia</p> <p><i>Invited Speaker at The 4th International Workshop on GIS Technology and Application</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| November 2020 | <p>Building Information Modeling (BIM) untuk Kadaster 3D Berbasis Kearifan Lokal di Indonesia</p> <p><i>Invited Speaker at INA CADASTRE DIGITAL EXPO, Bali</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| April 2020 | <p>Implementation of 4D Cadastre Concept for Land Dispute Potential and Solution of Post Natural Disaster in Palu, Indonesia</p> <p><i>Speaker at International FIG Working Week Seminar, Amsterdam</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| October 2019 | <p>Implementation of 3D Cadastre With Indigenous Knowledge Concept of “TRI HITTA KARANA” in Bali Island, Indonesia</p> <p><i>Speaker at International Conference on Geomatics and Geospatial Technology (GGT) 2019, Kuala Lumpur, Malaysia</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| October 2018 | <p>Pengembangan Sistem Informasi Kadastral Empat Dimensi (4D) Dalam Penyelesaian Sengketa Pada Pendaftaran Tanah</p> <p><i>Speaker at National Seminar on Agrarian and National Land Agency, Jakarta</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| September 2017 | <p>The Anyar River Depth Mapping from Surveying Boat (SHUMOO) using ArcGIS and Surfer</p> <p><i>Speaker at International Seminar ICCEREC 2017, Yogyakarta, Indonesia</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| May 2017 | <p>The Small Hydrography Marine Boundary Boat (SHUMOO) for Bathymetric 3D Surveys in Shallow Water</p> <p><i>Speaker at International Seminar AIMC 2017, UTM, Malaysia</i></p> <p>Download Slides — Pamphlet/Documentation</p> |

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| November 2016 | <p>The Small Hydrography Marine Boundary Boat (SHUMOO) for Mapping Bathymetry of Shallow Water Area</p> <p><i>Speaker</i> at <i>International Seminar GEOICON 2016 ITS, Surabaya, Indonesia</i></p> <p>Download Slides — Pamphlet/Documentation</p> |
| August 2016 | <p>The Small Hydrography Marine Boundary Boat (SHUMOO) for Mapping Bathymetry of Shallow Water Area</p> <p><i>Speaker</i> at <i>National Student Scientific Week (PIMNAS) 29th edition</i></p> <p>Download Slides — Pamphlet/Documentation</p> |

Mentorship and Service

Master Thesis Level

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| Jul 2025 – Present | <p>Analisis Konsistensi Geomateri dan Integrasi BIM (Building Information Modelling) dan Geospasial</p> <p>Dinna Maulia (25124004).</p> <p>Asep Yusup Saptari, Vera Sadarviana, Ketut Tomy Suhari</p> |
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Undergraduate Thesis Level

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| May 2024 – June 2025 | <p>Tugas Akhir Capstone Design Project ”Pembangunan BIM untuk Manajemen Aset Irigasi Berbasis WEB” (Institut Teknologi Bandung)</p> |
| Student Name | <p>Hasyir Saffanah (15121004), Amalia Dwi Rahma (15121021), Dekaila Syabania (15121026), Adinda Annisa S (15121060), Merryta Kusumawati (15121072).</p> |
| Supervisor | <p>Asep Yusup Saptari, Vera Sadaviana, Ratri Widyastuti, Ketut Tomy Suhari</p> |
| August 2024 – February 2024 | <p>Uji Akurasi Hasil Pemotretan Foto Udara dengan Menggunakan Metode Post-Processed Kinematics (PPK) dan Menggunakan Metode Navigasi pada Sistem Navigasi Pesawat VTOL Farm Mapper VTOL (Institut Teknologi Nasional Malang)</p> <p>Indra Tri Wahyudi</p> <p>Martinus Edwin Tjahjadi, Ketut Tomy Suhari</p> |
| August 2024 – February 2024 | <p>Analisis Fungsi Kawasan dengan Lahan Eksisting terhadap RTRW dengan memanfaatkan SIG di Kabupaten Gianyar (Institut Teknologi Nasional Malang)</p> <p>Yoga Sangga Bhuana</p> <p>Dedy Kurnia Sunaryo, Ketut Tomy Suhari</p> |

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| 2024 | Pemanfaatan Metode Support Vector Machine Dalam Identifikasi Ruang Adat Menggunakan Foto Tegak Ezequiel V.F. De Jesus F. Hery Purwanto, Ketut Tomy Suhari |
| 2024 | Kajian Teknis Peta Dasar Pertanahan dengan UAV PPK berdasarkan Peraturan Menteri ATR/BPN No 21 Tahun 2019 dan Petunjuk Teknis PTSL Tahun 2023 Ionta Andrika Budiarta Hery Purwanto, Ketut Tomy Suhari |
| 2024 | Analisis Perbandingan Hasil Model 3D Dari Software Agisoft Metashape Dan Software Luma AI Graciana Shania L. R Ketut Tomy Suhari |
| August 2023 – February 2023 | Penerapan Bentuk Pemodelan 3D Kadaster untuk Penilaian Properti dalam Menentukan Pajak Bumi dan Bangunan (PBB) dan Bea Perolehan Hak Atas Tanah dan Bangunan (BPHTB) atas Bangunan Strata Title (Institut Teknologi Sumatera) Dinna Maulia Rizky Ahmad Yudanegara, Harizul AKbar Nazwar, Ketut Tomy Suhari |
| February 2023 | Analisis Estimasi Biaya Ornamen Pelinggih berbasis Building Information Modeling (BIM) M Husyein Alfarizi Ketut Tomy Suhari |
| October 2022 | Pemanfaatan Terrestrial Laser Scanner (TLS) dalam Pembuatan BIM Bangunan Bersejarah Candi Kidal James Evan Souhuwat Ketut Tomy Suhari |
| October 2022 | Analisis Estimasi Nilai Ornamen Tradisional Bali Berbasis BIM I Gede Aldy Yoga Suyadnya Martinus Edwin Tjahjadi, Ketut Tomy Suhari |
| October 2022 | Analisis Data 3D Point Cloud pada Bangunan Bersejarah Candi Kidal Monica Nindy Setiadji Silvester Sari Sai, Ketut Tomy Suhari |

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| October 2022 | Pemanfaatan Building Information Modelling (BIM) Untuk Informasi Aset Bangunan Arnolus Putra Perdana Ferson Radja Wila Silvester Sari Sai, Ketut Tomy Suhari |
| September 2022 | Pengembangan Aplikasi Android Berbasis Augmented Reality dan Building Information Modelling untuk Dokumentasi Bangunan Candi Kidal Wahyu Eskanandha Martinus Edwin Tjahjadi, Ketut Tomy Suhari |
| September 2022 | Analisis Pola Tata Ruang dan Bangunan Adat Berbasis Building Information Modeling Lalu Furqan Arya Wikanda Silvester Sari Sai, Ketut Tomy Suhari |
| September 2022 | Pengembangan Aplikasi Berbasiskan BIM-VR Untuk Wisata Digital Pada Bangunan Bersejarah Ahmad Aditya Rahman Martinus Edwin Tjahjadi, Ketut Tomy Suhari |
| March 2022 | Komparasi 3D Modeling Jembatan dari Hasil Pemotretan Konvergen dan Normal Menggunakan Drone DJI Phantom 4 Pro (Metode Close Range Photogrammetry) Nicolas Alnando Martinus Edwin Tjahjadi, Ketut Tomy Suhari |
| March 2022 | Kajian untuk uji akurasi level of detail (LoD) 3 jalan raya dari foto udara skala 1:1000 (studi kasus: Jalan Bayat, Kabupaten Klaten) Dwiki Altito Priambodo Martinus Edwin Tjahjadi, Ketut Tomy Suhari |
| February 2022 | Analisis Pengaruh Retro Target Terhadap Hasil Pemodelan Pada Kamera DSLR Rifqi Miftakhul Ma'ruf Martinus Edwin Tjahjadi, Ketut Tomy Suhari |
| February 2022 | Pemanfaatan fotogrametri rentang dekat dari hasil konfigurasi pemotretan konvergen dan normal untuk pemodelan 3D jembatan menggunakan kamera DSLR Kevinsano Teniwut Martinus Edwin Tjahjadi, Ketut Tomy Suhari |

Professional memberships

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| 2022 – Present | Member of Indonesian Engineers Association (<i>Persatuan Insinyur Indonesia</i>) |
| 2021 – Present | Member of Indonesia Surveyor Association (<i>Ikatan Surveyor Indonesia</i>) - ISI |
| 2020 – Present | Member of Indonesian Geospatial Expert Society (<i>Perkumpulan Ahli Informasi Geospasial Indonesia</i>) - PAGI |
| 2017 – Present | Member of Indonesian Cadastral Surveyors Society (<i>Masyarakat Ahli Survei Kadaster Indonesia</i>) - MASKI |
| 2015 – 2016 | Coordinator of Networking and Communication Department at Geodesy Students Association (<i>JARKOM Himpunan Mahasiswa Geodesi</i>) - ITN Malang |
| 2014 – 2015 | Chairman of Hindu Dharma Student Association (<i>Ikatan Mahasiswa Hindu Dharma</i>) - IMHD ITN Malang |

Technical skills

Programming languages

Proficient in: Javascript, Python, PHP

Familiar with: Reactjs, Electronjs

Software

LaTeX, Agisoft Metashape, QGIS, Blender, Revit, BIM Server

Languages

Indonesia (fluent), English (advanced), Malaysia (advanced)

Other interests

Tennis, Touring