

## RESUME

### Hadi Susanto

Professor

Department of Mathematics

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### Education & Training

Higher Education Academy	United Kingdom		Assoc. Fellow, Feb 2013
University of Nottingham	United Kingdom		PGCHE, 2012
University of Twente	The Netherlands	Applied Mathematics	Dr, Jan 2006
University of Twente	The Netherlands	Applied Mathematics	MSc, Jun 2003
Institut Teknologi Bandung	Indonesia	Mathematics	BSc <i>cum laude</i> , Jul 2001

### Academic Position

2023 – 2024	Honorary Professor, Institut Teknologi Sumatera
2020 – present	Professor, Khalifa University
2019 – 2022	Professor of Applied Mathematics, University of Essex
2018 – present	Adjunct Professor, Institut Teknologi Bandung
2013 – 2019	Senior Lecturer in Applied Mathematics, University of Essex
2008 – 2013	Lecturer in Applied Mathematics, University of Nottingham
2006 – 2008	Visiting Assistant Professor, University of Massachusetts, Amherst

### Administrative Service

2022–2025, Advisory Board member, Insitut Teknologi Bandung  
2022–2023, Department Promotion Committee member  
2020–now, Associate Chair for Graduate Studies  
2020, College of Engineering Undergraduate Curriculum Committee  
2021–now, University Graduate Student Committee member  
2016–2019, Director of Research and Impacts  
2016–2019, Ethics Officer  
2016–2019, Chair of Staff Student Liaison Committee  
2016–2019, Grant Application Officer  
2015, Deputy Graduate Program Director  
2013–2015, PGT Project Coordinator  
2013–2015, GTA Coordinator  
2011–2013, Program Director (MSci & BSc Hons) of Mathematical Physics  
2008–2010, Postgraduate Student Teacher Mentor  
2008–2010, Postgraduate Teaching Support Officer  
2008–2010, Staff Development Officer

### Visiting Position

Institut Teknologi Sepuluh Nopember, Jul. – Aug. 2017, Aug. 2019, Sept.-Dec. 2021.  
Institut Teknologi Bandung, Jul.-Aug. 2018.

### Recognition

Faculty Research Excellence Award 2022 (Professor Rank), Khalifa University, May 2023.  
Alumni Award 2022, College of Mathematics and Natural Sciences, Insitut Teknologi Bandung.  
Elected Honorary Member, the Physical Society of Uzbekistan, April 2011.

"World Class Professors" Program Fellow, Ministry of Research, Technology, and Higher Educations, Government of Republic of Indonesia, 2016–2019, 2022.

Ganesa Prize (Institut Teknologi Bandung Best Student), Aug. 2000

### **Editor**

Optical and Quantum Electronics, 2019 – 2022 (Editor), 2023 – 2026 (Associate Editor).

Frontiers in Photonics (Nonlinear Optics section), 2021 – 2022 (Review Editor), 2022 – present (Associate Editor).

Mathematics (Special Issue "Mathematical Methods in Nonlinear Waves and Dynamical Systems"), 2019 – 2020.

Communication in Biomathematical Sciences, 2017 – present.

### **Supervision**

#### **— Postdoc**

Rahmi Rusin, 2023

Roberto Flores, 2022-2025 (joint w/ Elena Fantino)

Taufik Sutanto, 2022-2023

Nianqiang Li, 2016-2018 (joint w/ Michael Adams and Ian Henning)

#### **— PhD**

Luthfi Shahab, 2021 –

Abrari Noor Hasmi, 2021 –

Omar Forrest, 2021 –

Zulkarnain, 2020 –

Awatf Alwiya, 2016–2019 (Lead supervisor: Chris Antonopoulos).

Rahmi Rusin, 2015–2018.

Yuslenita Muda, 2015–2018.

Amal Jasim Mohammed, 2015–2018 (Lead supervisor: Georgi Grahovski)

Junaid Idrees Mustafa, 2015–2018 (Lead supervisor: Georgi Grahovski).

Rudy Kusdiantara, 2014–2017.

Omar Karakchi, 2014–2017.

Tahani Al-Karkhi, 2013–2016, (Co-supervisor: Edward Codling).

Sendy Phang, 2012–2016, (Lead supervisor: Ana Vukovic, Co-supervisors: Trevor Benson & Philip Sewell).

Hui Jiang, 2010–2013, (Co-supervisors: Trevor Benson & Andrew Cliffe).

M. Irfan Qadir, 2009–2012, (Co-supervisor: Paul Matthews).

Amir Ali, 2009–2012, (Co-supervisor: Jonathan Wattis).

Mahdhivan Syafwan, 2008–2012, (Co-supervisor: Steve Cox).

Saeed Ahmad, 2008–2012, (Co-supervisor: Jonathan Wattis).

Xiang Yi, 2008–2010, (Lead supervisor: J.A.D. Wattis).

### **PhD Exam Committee**

Laila Al Sakkaf, United Arab Emirates University, April 2023.

Alan Mohammed Omar, University of Nottingham, December 2019.

Syed Ghufuran, University of Essex, December 2017.

Maharani, University of Essex, July 2015.

Nijamuddin Ali, Visva-Bharati University, July 2015.

Rashid Shakeer, University of Nottingham, July 2013.

Sahabuddin Sarwardi, Visva-Bharati University, June 2013.

## **Selected Research grant**

Competitive Internal Research Awards (CIRA), Khalifa University, "Building next generation orbit propagation and analysis capabilities," July 2022 – December 2025, E. Fantino (PI) and H. Susanto [AED 2.1M]

Faculty Startup Grant, Khalifa University, "Machine Learning for Dynamical Systems Analysis," July 2021 – June 2023, H. Susanto (PI) [AED 880K]

Research and COVID-19 Innovation Consortium, Indonesia Ministry of Research and Technology and Ministry of Finance, "Indonesian COVID–19 Mathematical Modelling Simulations and Applications," September 2020 – September 2021, N. Nuraini (PI), B.W. Lestari, E.R.M. Putri, and H. Susanto [IDR 300M].

EPSRC, SPIN SPACE (Spatially encoded telecoms and quantum technologies using spin-enabled all-optical switching), April 2015 – March 2018, Essex: I. Henning (PI), H. Susanto, M. Adams, N. Balkan, Bristol: R. Oulton (PI), J. Rorison, E. Harbord, total £2M FEC.

## **CAREER HIGHLIGHTS**

### **Teaching**

- Extensive undergraduate and postgraduate teaching and course development in mathematics for science and engineering students in a variety of different international institutions.
- Leading development of novel and innovative teaching techniques, and incorporate new learning technologies, such as implementing screencasts in my teaching using, e.g., Camtasia.
- Training program on international education systems to faculty members in various universities in Indonesia.
- Extensive graduate supervision completed under my tutelage
- Extensive graduate student advisory committee experience and examination in various developing countries, in particular Indonesia and Uzbekistan.
- Curriculum innovation (undergraduate): revision of mathematics and engineering program at several universities in Indonesia.
- Curriculum innovation (graduate): co-developer of the PG (MSc and PhD) program at Khalifa University, became its first PG director and represented the college in the University Graduate Committee.
- Invited speaker/symposium organizer on teaching and learning, particularly active learning strategies, at international and national meetings.
- Extensive capacity building in Indonesia (almost every year), such as
  - Workshop on "PDEs and Dynamical Systems" (3-4 hours each day), University of Indonesia, 8-9 August 2022.
  - Workshop on "Asymptotic methods and perturbation theory" (10 hours in total), Institut Teknologi Kalimantan, Balikpapan, 7–8 August 2017.
  - Mathematics workshop on "Nonlinear Waves" (5 hours each day), Brawijaya University, 22-24 August 2016.
  - Mathematics workshop on "Dynamical Systems in PDEs" (15 sessions of 2 hours each [6 hours/day], with R Marangell – Sydney Uni), University of Indonesia, 10-15 August 2015.

### **Research**

- Areas of research interests: dynamical systems and applied analysis in the study of nonlinear waves.
- Internal and external research funding from national and international agencies in UK, UAE, NL, EU, and Indonesia (2008–present).
- Publications: > 120 full papers in top-tier journals and about 30 papers in refereed conference proceedings

and book chapters.

- Joint holder two patents (registered in Indonesia) for COVID-19 analysis (app was used by the Ministry of Research and Technology, Republic of Indonesia).
- Invited speaker on research in international conferences. 5-10 invited/keynote talks per year in Indonesia only.
- International organizing committee of conferences and minisymposia, such as
  - Minisymposium "Coherent structures of nonlinear evolution and lattice equations", Equadiff 2019, Leiden, July 2019.
  - Lorentz Center workshop on "Nonlinear PDEs on Metric Graphs and Branched Networks", Leiden, August 2018 (with M. Chirilus-Bruckner, D. Matrasulov, D. Noja, and D. Pelinovsky).
- Reviewer for about 80 scientific journals and various funding agencies.
- Associate Editor of top-tier scientific journals.

### **Administration**

- Extensive committee experience within universities, for professional bodies (mathematics education), local schools, cultural organizations and voluntary organizations in the community.
- Development and implementation of a strategic approach to enrolment management (undergraduate, graduate and international).
- Considerable managerial experience in academic management of universities including university residence, conference and catering businesses, registrarial functions and information system implementation.
- Academic administration: Associate Chair for Graduate Studies, UAE 2000–present (academic management, admissions and counseling), Director of Research and Director of Impact, Essex 2016-2019 (assessing department research activities, co-lead UK REF 2021 internal review process preparation – 1st time ever submission, as DoR I managed to increase department participation in grant applications).
- Invited to Essex Strategic Leaders to develop further leadership skills using intensive senior management training sessions.
- Leading the Maths Area Review team within Essex Faculty of Science and Health to identify emerging trends in Mathematics that are significant for the particular configuration of subjects present at the University.

### **Community Impact**

- Co-establishing SimcovID (<https://simcovid.github.io/>), a COVID-19 research consortium comprising Indonesian researchers who have constructed models and run simulations related to COVID-19 in Indonesia. The team's 'COVID meter' (<https://ppms.itb.ac.id/simcovid/>) was adopted by Kemenristek-BRIN as an alternative measure of the national government's public policy.
- Involved in the COVID-19 Accelerated Response Task Force (Gugus Tugas Percepatan Penanganan COVID-19) of West Java province (consultant for the West Java Provincial Team the Covid-19 Task Force Team).
- Elected as member of "World Class Professors" programme (among only c.40 members from Indonesian academicians working abroad) by the Ministry of Research, Technology, and Higher Education, Republic of Indonesia since 2016. The programme is to provide feedbacks to the ministry and to improve the quality development of human resources within Indonesian universities. Activities include discussions with university senior managements, talks, and workshops.
- Actively involved in Indonesian muslim communities, such as Chair of Nahdlatul Ulama Executive Board - UK Branch (PCINU UK, 2006–2019), Indonesian Muslim Community in Abu Dhabi (KMMI Abu Dhabi, 2023–now).

## Miscellaneous

- I have been one of eminent figures in Indonesia in COVID-19 analysis and I was interviewed in national and international televisions, radios, and newspapers.
- I wrote a popular science book titled “Tuhan Pasti Ahli Matematika” (God Must be an Expert in Maths), published by a major Indonesian press in 2015. The book is sold-out. It has been reviewed in various newspapers, blogs, Youtube, Facebook, Twitter, etc. It is rated 3.6/4.0 on Goodreads.com and 4.6/5.0 on Google Store.
- I have been featured in several national newspapers and magazines for my public engagement activities and love in mathematics and literature:
  - The Jakarta Post (21 August 2017), a daily English language newspaper in Indonesia, in the article “Simple language needed to make science enjoyable in Indonesia” mentioned me as a profile in science communication.
  - Hidayatullah (December 2017), a monthly national Indonesian magazine, 6 pages of interviews on family, education, religion, research, mathematics, and literature.
  - Koran Tempo (18 May 2008), a daily national newspaper, 1 page of interviews on mathematics and literature.
  - many more small news covering my activities.
- (1 out of only 3) Invited speaker at the national Science Communication seminar (11 August 2017) with the topic “Building a Science-based Society” by the Ministry of Research, Technology, and Higher Education, Indonesia. Attended by hundreds of academicians and covered by tens of news media. The seminar was part of the 22nd commemoration of the Indonesian National Technology Awakening Day (Hari Kebangkitan Teknologi Nasional).
- Facebook influencer. I have a personal Facebook page, that only posts my own short popular science/math articles. On average every post is liked and shared by hundreds. E.g., my article (14 February 2016) on a possibly Indonesian autistic savant went viral (viewed/read 11K times, shared c.400 times) and was covered by several national newspapers.