PERSONAL INFORMATION

Irfan Nurhidayat, Ph.D.

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– Indonesia: Jalan Kapur, Dusun 01, RT. 002, RW. 001, Sutawangi, Jatiwangi, Majalengka 45454, Jawa Barat

📱 WhatsApp: +66 93 723 6438; Call: +62 895 8079 50602

✉ irfannurhidayat09@gmail.com

🖱 https://irfannurhidayat09.wordpress.com/

in https://www.linkedin.com/in/irfan-nurhidayat-35754413a/

Gender Male | Date of birth October 9, 1994 | Nationality Indonesian

CURRENT RESEARCH

Applied Mathematics, Support Vector Machine, R Programming

CURRENT PROFESSIONAL APPOINTMENTS

Present

Northern University of Malaysia, Changlun, Malaysia

Placement: International Senior Lecturer.

EDUCATION

August 2, 2021 – August 23, 2023

King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand

Ph.D. degree in Applied Mathematics focusing on Support Vector Machines.

[August 2021 – May 2024 with No. KDS2020/045] Supported by university scholarships for doctoral students with amounts to THB 18,000 per month for 3 years, tuition fee waived, research stipend, and an economy class air ticket. Thesis title: An accurate evaluating algorithm to construct modified SVM kernel methods. Honors cum laude of GPA 4.00/4.00 with outstanding.

February 24, 2020 – September 22, 2020

University of Insubria, Varese, Italy

Ph.D. degree in Mathematics focusing on Partial Differential Equations.

[February 24, 2020 – February 24, 2023] Supported by university scholarships with amounts to EUR 15,343,28 per year for 3 years. Incomplete due to C19 in Lombardy.

September 11, 2017 – June 28, 2019

National Taiwan Normal University, Taipei City, Taiwan

M.S. degree in Mathematics with focusing on Continuous Optimization.

[September 11, 2017 – August 5, 2019] Supported by scholarships for international graduate students with amounts to TWD 6,000 per month and partial tuition fee waived for 2 years. Honors cum laude of GPA 3.88/4.00. Thesis title: An ordinary differential equation approach for nonlinear programming and nonlinear complementarity problem.

September 3, 2012 – November 22, 2016

Jenderal Soedirman University, Purwokerto, Indonesia

B.Sc. degree in Mathematics with focusing on Fractional Differential Equations.

Honors cum laude of GPA 3.65/4.00 with the best graduate of the Department of Mathematics and the Faculty of Mathematics and Natural Sciences. Thesis title: Superdiffusion equation and its fundamental solution.

CREDENTIALS AND CERTIFICATIONS	

December 5–9, 2022 — **Thiagarajar School of Management, Madurai, India**
Certificate of Participation: The Faculty Development Programme on First Step into World.

September 1 – October 6, 2022 — **Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka**
in association with Emerald Publishing and Gulf Medical University.
Certificate of Attendance Sections 4-7: Research Mentoring Programme 2022.

July 22, 2022 — **IPB University, Bogor, Indonesia**
Certificate: Research Methodology and How to Publish A Good Quality Journal Article.

March 5, 2022 — **Sofia University St. Kliment Ohridski, Bulgaria**
Certificate: Researcher Focus Group on Leadership Development, Skills and Opportunities. Task 2.2 Partner EURAXESS Hubs project is supported by the Horizon 2020 Programme, GA no. 101035541.

February 26, 2021 — **Taylor's University, Subang Jaya, Malaysia**
Course Certificate: Theorising and Research Methods in Management Research.

February 20, 2021 — **Tun Hussein Onn University of Malaysia, Parit Raja, Malaysia**
Certificate of Participation: Data Analysis Using Statistical Package for the Social Sciences (SPSS).

PUBLICATIONS

Journal Articles (13)

13. (with E.E. Elsayed, M.R. Hayal, M.A. Shah, A. Elfikky, A.I. Boghdady, D.A. Juraev, and M.A. Morsy) *Coding techniques for diversity enhancement of dense wavelength division multiplexing MIMO-FSO fault protection protocols systems over atmospheric turbulence channels*, Q3, IET Optoelectronics, UK.

12. (with N. Basil, H.M. Marhoon, M.R. Hayal, E.E. Elsayed, and M.A. Shah) *Black-hole optimization algorithm with FOPID-based automation intelligence photovoltaic system for voltage and power issues*, Q3, Australian Journal of Electrical and Electronics Engineering, UK.

11. (with D.A. Juraev, A. Shokri, P. Agarwal, and E.E. Elsayed) *Approximate solutions of the Helmholtz equation on the plane*, Engineering Applications, Türkiye.

10. (with S.W. Shah, M.Y. Khan, G. Ali, S.K. Sahoo, and H. Emadifar) *On Partition Dimension of Generalized Convex Polytopes*, Q3, Journal of Mathematics, Egypt.

9. (with B. Pimpunchat) *A comparative approach to SVM kernel functions via accurate evaluating algorithms*, Q3, Journal of Engineering Science and Technology, Malaysia.

8. (with S. Kumar, A.K. Pal, N. Varish, S.M. Eldin, and S.K. Sahoo) *A Hierarchical Approach Based CBIR Scheme using Shape, Texture, and Color for Accelerating Retrieval Process*, Q1, Journal of King Saud University – Computer and Information Sciences, Saudi Arabia.

7. (with B. Pimpunchat and W. Klomsungcharoen) *More accurate simulation of insurance data based on a modified SVM polynomial method*, Q2, Journal of Intelligence and Fuzzy Systems, The Netherlands.

6. (with S. Afridi, M.Y. Khan, G. Ali, M. Ali, and M.A. Arefin) *Sharp Bounds of Kulli-Basava Indices in Generalized Form for k-Generalized Quasi Trees*, Q3, Journal of Mathematics, Egypt.

5. (with M.R. Hayal, E.E. Elsayed, D. Kakati, M. Singh, A. Elfikky, A.I. Boghdady, A. Grover, S. Mehta, and S.A. Hassnain Mohsan) *Modeling and investigation on the performance enhancement of hovering UAV-based FSO relay optical wireless communication systems under pointing errors and atmospheric turbulence effects*, Q2, Optical and Quantum Electronics, USA.

4. (with M.Y. Bhat, A.H. Dar, and S. Pinelas) *An interplay play of Wigner-Ville Distribution and 2D Hyper-complex Quadratic-phase Fourier Transforms*, Q1, Fractal and Fractional, Switzerland.

3. (with G. Dharmaiah, J.L. Rama Prasad, K.S. Balamurugan, S. Noeiaghdam, and U. Fernandez-Gamiz) *Performance of magnetic dipole contribution on ferromagnetic non-Newtonian radiative MHD blood flow: An application of biotechnology and medical sciences*, Q1, Heliyon, The Netherlands.

2. (with M.Y. Bhat, A.H. Dar, and S. Pinelas) *Uncertainty Principles for the Two-sided Quaternion Windowed Quadratic-phase Fourier Transform*, Q1, Symmetry, Switzerland.

1. (with B. Pimpunchat, S. Noeiaghdam, and U. Fernandez-Gamiz) *Comparisons of SVM Kernels for Insurance Data Clustering*, Q1, Emerging Science Journal, Italy.

Conference Poster (1)

1. (with P. Meeklueb and B. Pimpunchat) *SVM Classifications for Insurance Data Processing*, Forum "Math for Industry" 2021: Mathematics for Digital Economy on December 14, VIASM, Hanoi, Vietnam.

REFEREEING

Certificates (2)

1. 2023, Reviewer, Hindawi.
2. 2023, Reviewer, Journal of Engineering Science and Technology.

Editors (2)

1. Associate Editor, Mathematical Models and Methods in Modern Mathematics, Roman Science Publications Inc., UK.
2. Associate Editor, Karshi Multidisciplinary International Scientific Journal, University of Economics and Pedagogy, Uzbekistan.

Reviewers (9)

1. Q3, Managerial Finance, Emerald Group Publishing Ltd., UK.
2. Q2, Journal of Statistics Applications & Probability, Natural Sciences Publishing, USA.
3. Q3, Journal of Mathematics, Hindawi Limited, Egypt.
4. Q2, Applied Mathematics & Information Sciences, Natural Sciences Publishing, USA.
5. Q3, Journal of Engineering Science and Technology, School of Engineering, Taylor's University, Malaysia.
6. Q2, Information Sciences Letters, Natural Sciences Publishing, USA.
7. Q2, Optical and Quantum Electronics, Springer, USA.
8. International Journal on Data Science and Technology, Science Publishing Group, USA.
9. Q3, Journal of Advanced Research in Fluid Mechanics and Thermal Sciences, Semarak Ilmu Publishing, Malaysia.

PAST PROFESSIONAL APPOINTMENTS

March 18–27, 2024

Junior Researcher Fellow

Department of Scientific Research, Innovation and Training of Scientific and Pedagogical Staff, University of Economics and Pedagogy, Karshi, Uzbekistan.

August 2, 2021 – August 23, 2023

Research and Teaching Assistant

Department of Mathematics, School of Science, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand.

June 10–21, 2019

Teaching Assistant

Advanced Calculus II, National Taiwan Normal University, Taipei City, Taiwan.

September 2018 – January 2019   Teaching Assistant

Advanced Calculus I, National Taiwan Normal University, Taipei City, Taiwan.

February 2018 – June 2018   Teaching Assistant

Linear Programming, National Taiwan Normal University, Taipei City, Taiwan.

May 7–11, 2018   Committee

The 8th ICMI-East Asia Regional Conference on Mathematics Education (EARCOME 8), National Taiwan Normal University, Taipei City, Taiwan.

1st Semester (AY 2016/2017)   Assistant Lecturer

Real Analysis I, Jenderal Soedirman University, Purwokerto, Indonesia.

1st Semester (AY 2015/2016)   Assistant Lecturer

Real Analysis I, Jenderal Soedirman University, Purwokerto, Indonesia.

2nd Semester (AY 2015/2016)   Assistant Lecturer

Calculus II, Jenderal Soedirman University, Purwokerto, Indonesia.

July 27 – August 31, 2015   Community Development Participation

Honors over the best team from Jenderal Soedirman University in Community Development Participation (KKN) for the development of underdeveloped villages i.e. Gerduren at Purwojati, Banyumas 53175, Central Java, Indonesia. KKN theme: Optimism in building a village of pioneering UMKM based on agriculture.

April 8–9, 2015   Olympiad

A delegacy from Department of Mathematics, Jenderal Soedirman University, for National Olympiad of Mathematics and Natural Sciences (ON-MIPA) at Central Java for undergraduate students, IKIP PGRI, Semarang, Indonesia.

March 4 – April 4, 2015   Training

Department of Mathematics, Jenderal Soedirman University, related to mathematics olympiad preparation for undergraduate students at Central Java universities level.

January 20 – February 20, 2015   Internship

Internship works at observation teams of Meteorological, Climatological, and Geophysical Agency (BMKG) Jatiwangi, Majalengka, West Java, Indonesia. Project title: Chi-Square test against the relationship the rainfall and humidity in Jatiwangi subdistrict Majalengka regency in the years 2005 – 2014.

1st Semester (AY 2014/2015)   Assistant Lecturer

Real Analysis I, Jenderal Soedirman University, Purwokerto, Indonesia.

April 27, 2014   Committee

The "Achievement Motivation Training 7", HIMAKA event for Ordinary Senior High and Islamic Senior High Schools at Majalengka.

April 21–22, 2014   Olympiad

A delegacy from Department of Mathematics, Jenderal Soedirman University, for National Olympiad of Mathematics and Natural Sciences (ON-MIPA) at Central Java for undergraduate students, IKIP PGRI, Semarang, Indonesia.

March 15 – April 13, 2014   ## Training

Department of Mathematics, Jenderal Soedirman University, related to mathematics olympiad preparation for undergraduate students at Central Java universities level.

2nd Semester (AY 2013/2014)   ## Assistant Lecturer

Calculus II, Jenderal Soedirman University, Purwokerto, Indonesia.

ACHIEVEMENTS

May 14, 2021   ## Liaison

Academic cooperation between King Mongkut's Institute of Technology Ladkrabang, Thailand, and Huawei, India.

October 30, 2020   ## Fellowship Offering

Ph.D. program in Applied Mathematics with scholarships at King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand.

February 4, 2020   ## Fellowship Offering

Ph.D. program in Business Administration with a fellowship at National Central University (NCU), Taiwan, and Infineon Technologies (Semiconductor & System Solutions), Germany.

September 23, 2019   ## Fellowship Offering

Ph.D. program in Mathematics with a fellowship at the University of Insubria, Varese, Italy.

June 10, 2017   ## Fellowship Offering

M.S. program in Mathematics with a fellowship at National Chung Cheng University, Minhsiung, Taiwan.

June 9, 2017   ## Fellowship Offering

M.S. program in Mathematics with a fellowship at Calabria University, Cosenza, Italy.

May 17, 2017   ## Fellowship Offering

M.S. program in the Graduate Institute of Opto-Mechatronics with a fellowship at National Central University, Chung Li, Taiwan.

May 12, 2017   ## Fellowship Offering

M.S. program in Mathematics with a fellowship at National Taiwan Normal University, Taipei City, Taiwan.

March 10, 2017   ## Fellowship Offering

M.S. program in Intelligent Systems Software Laboratory (ISS) with a fellowship at National Central University, Chung Li, Taiwan.

February 8, 2017   ## Fellowship Offering

M.S. program in Mathematics with a fellowship at Near East University, North Nicosia, Northern Cyprus, officially the Turkish Republic of Northern Cyprus.

February 2, 2017   ## Fellowship Offering

M.S. program in Applied Mathematics and Informatics with a fellowship at Lobachevsky University, Nizhny Novgorod, Russian Federation.

November 22, 2016   ## Best Graduating

The best graduate at the Department of Mathematics and Faculty of Mathematics and Natural Sciences (FMIPA), Jenderal Soedirman University, Purwokerto, Indonesia.

May 22, 2015   ## Article Competition

The winner of article competitions at the Department of Mathematics, Jenderal Soedirman University. Article title: Max-plus algebra over fuzzy numbers.

PERSONAL SKILLS

Mother tongue   Indonesian, Sundanese.

Other language(s)   English.

Communication skills
- Academic context: I have acquired strong communication skills through my experience as a teaching assistant.
- Teamwork: During my tenure as a teaching assistant, I collaborated closely with fellow educators to support numerous students facing challenges in mathematics. We engaged in thorough discussions, providing detailed explanations until the students grasped the underlying theories. Furthermore, I contributed significantly to research by authoring papers for publication and delivering oral presentations at various academic events, such as seminars, conferences, and workshops. These endeavors involved extensive dialogue and idea exchange with colleagues within my institution and from diverse backgrounds.
- Intercultural skills: I am familiar with diversity and derive enjoyment from it.

Organizational members
- EURAXESS Bulgaria.
- KMITL Indonesian Student Association (PERMITHA KMITL).
- NTNU Indonesian Student Association (PPI NTNU).
- NTNU International Students Alumni.
- UNSOED Mathematics Department Student Association (HIMATIKA).
- Majalengka Student Activity Unit (HIMAKA).

Computer skills
- Competent with most Microsoft Office programs.
- Familiarity with LaTeX, R.

Other skills   I possess a profound enthusiasm for sports, with a special affinity for football, badminton, table tennis, cycling, and swimming. Furthermore, my profound love for travel enables me to engage with various cultures and embrace diverse experiences fully.

ADDITIONAL INFORMATION

Driving license in Indonesia and ASEAN   A and C.

References   Available upon request.

Suggestion   More about me, here.