

Curriculum Vitae

ASEP SUHENDI



PERSONAL DETAILS

Full name : **Asep Suhendi**
Field of interests : Instrumentation, Physics, Physical Engineering, Aerosols, Nanomaterials, Chemical
Field of interests : Instrumentation, Physics, Physical Engineering, Aerosols, Nanomaterials, Chemical Engineering, Electrical Engineering
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EDUCATION

2010-2013 Doctoral Degree in Chemical Engineering (Dr. Eng.)
Hiroshima University, Japan
Dissertation title: “Self-organized Nanostructured Particles Fabricated From Spray-drying of colloidal Nanoparticles“, under supervision of Professor Kikuo Okuyama of Hiroshima University.
2005-2008 Master Degree in Physics (M.Si.), Institut Teknologi Bandung, Bandung, Indonesia
2001-2005 Bachelor Degree in Physics (S.Si.), Institut Teknologi Bandung, Bandung, Indonesia

Publications in Peer-reviewed Journals:

1. C.W. Kartikowati, A. Suhendi, R. Zulhijah, T. Ogi, T. Iwaki, and K. Okuyama, "Effect of magnetic field strength on the alignment of α -Fe₁₆N₂/Al₂O₃ nanoparticle films", *Nanoscale* 8 (5), (2016).
2. C.W. Kartikowati, A. Suhendi, R. Zulhijah, T. Ogi, T. Iwaki, and K. Okuyama, "Preparation and evaluation of magnetic nanocomposite fibers containing α -Fe₁₆N₂/Al₂O₃ and α -Fe nanoparticles in polyvinylpyrrolidone via magneto-electrospinning", *Nano Technology* 27 (2), (2015).
3. A. Suhendi, C.W. Kartikowati, R. Zulhijah, T. Ogi, T. Iwaki, and K. Okuyama, "Preparation and Characterization of Magnetic Films of Well-dispersed Single Domain of Core-Shell α -Fe₁₆N₂/Al₂O₃ Nanoparticles", *Advanced Powder Technology* 26 (6), (2015).
4. R. Zulhijah, A. Suhendi, K. Yoshimi, C.W. Kartikowati, T. Ogi, T. Iwaki, and K. Okuyama, "Low-Energy Bead-Mill Dispersion of Agglomerated Core-Shell α -Fe/Al₂O₃ and α -Fe₁₆N₂/Al₂O₃ Ferromagnetic Nanoparticles in Toluene", *Langmuir*, 31(22), (2015).
5. A.B.D. Nandiyanto, A. Suhendi, T. Ogi, R. Umemoto, and K. Okuyama, "Size- and charge-controllable polystyrene spheres for templates in the preparation of porous silica particles with tunable internal hole configurations", *Chemical Engineering Journal*, 256, (2014).
6. A. Suhendi, A.B.D. Nandiyanto, M.M. Munir, T. Ogi, L. Gradon, and K. Okuyama, "Self-assembly of Colloidal Nanoparticles Inside Charged Droplets During Spray-drying in the Fabrication of Nanostructured Particles", *Langmuir*, 29(24), (2013).
7. A. Suhendi, A.B.D. Nandiyanto, M.M. Munir, T. Ogi, and K. Okuyama, "Preparation of Agglomeration-free Spherical Hollow Silica Particles using an Electro spray Method with Colloidal Templating", *Material Letters* 106, (2013).
8. A.B.D. Nandiyanto, A. Suhendi, O. Arutanti, T. Ogi, and K. Okuyama, "Influences of Surface Charge, Size, and Concentration of Colloidal Nanoparticles on Fabrication of Self-Organized Porous Silica in Film and Particle Forms", *Langmuir* 29(21), (2013).
9. A. Suhendi, A.B.D. Nandiyanto, T. Ogi, and K. Okuyama, "Agglomeration-free Core-shell Polystyrene Silica Particles Preparation using an Electro spray Method and Additive-free Cationic Polystyrene core", *Material Letters* 91, (2012).
10. A. Suhendi, M.M. Munir, A.B. Suryamas, A.B.D. Nandiyanto, T. Ogi, and K. Okuyama, "Control of Cone-jet Geometry during Electro spray by an Electric Current", *Advanced Powder Technology* 24(3), (2012).
11. A.B.D. Nandiyanto, A. Suhendi, T. Ogi, T. Iwaki, and K. Okuyama, "Synthesis of Additive-free Cationic Polystyrene Particles with Controllable Size for Hollow Template Applications", *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 396, (2012).
12. A.B.D. Nandiyanto, A. Suhendi, Y. Kisakibaru, T. Ogi, and K. Okuyama, "Generation of Highly Ordered Porous Antimony-Doped Tin Oxide Film by A Simple Coating Method with Colloidal Template", *International Journal of Chemical and Environmental Engineering* 6, (2012).

13. M.M. Munir, A. Suhendi, T. Ogi, F. Iskandar, and K. Okuyama, "Ion-induced nucleation rate measurement in SO₂/H₂O/N₂ gas mixture by soft X-ray ionization at various pressures and temperatures", *Advanced Powder Technology* 24(1), (2012).
14. M.M. Munir, A. Suhendi, T. Ogi, F. Iskandar, and K. Okuyama, "Experimental evaluation of the pressure and temperature dependence of ion-induced nucleation", *Journal of Chemical Physics* 133, (2010).
15. B.E.B. Nurhandoko, K. Triyoso, M.T. Choliq, M.L. Budi, A. Suhendi, W.E. Abdianto, F. Anbiya, "Marine Seismic Tomography for Detecting Fracture and Void of Subsurface Seabed : a Theoretical Framework Development and Application of Wide-Band Fresnel Tomography", *Indonesian Journal of Physics*, 19(4), (2008)
16. Khairurrijal, M. Abdullah, A. Suhendi, M.M. Munir and A. Surachman, "A simple microcontroller-based current electrometer made from LOG112 and C8051F006 for measuring current in metal-oxide-semiconductor devices", *Meas. Sci. Technol.* 18, pp. 3019–3024 (2007)
17. Khairurrijal, M.M. Munir, A. Suhendi, H. Thaha and M. Budiman, "An AT89S52 microcontroller-based single board computer for teaching an instrumentation system course", *Computer Applications in Engineering Education* 15(2), (2007).
18. Khairurrijal, M. Abdullah, M.M. Munir, A. Surachman and A. Suhendi, "Low Cost and User-friendly Electronic Components Characterization System for Undergraduate Students", *WSEAS Transactions on Advances in Engineering Education* 3(11), (2006)

B. Publications in Proceedings of International Meetings:

- [1].Khairurrijal, A. Surachman, A. Suhendi, H. Permadi, C8051F005 System-on-a-chip-based trainer for learning microcontroller system, **The 6th WSEAS Int. Conf. on Education and Educational Technology (EDU) 2007**, pp. 64-67, Venice, Italy, 21-23 November, 2007.
- [2].D. Hamdani, A. Suhendi, M. Abdullah, and Khairurrijal, A simple method for determining the ratio of Planck's constant to electronic charge using characteristic curves of light emitting diodes (LEDs), **Asian Physics Symposium (APS) 2007**, pp. C03.1-C03.3, Bandung, 29-30 November, 2007.
- [3].D. Hamdani, A. Suhendi, M. Abdullah, and Khairurrijal, Analysis of obstacles and difficulties in using the Elkahfi 100 I-V meter for characterizing electronics components, **International Conference on Instrumentation, Communication, and Information Technology (ICICI) 2007**, pp.113-115, Bandung, 8-9 August, 2007.
- [4].Khairurrijal, M. Abdullah, M.M. Munir, A. Suhendi and A. Surachman: Home-made electronic components characterization system for electronics course at undergraduate level, **5th WSEAS Int. Conf. on EDUCATION and EDUCATIONAL TECHNOLOGY (EDU'06)**, Tenerife, Canary Islands, Spain, December 16-18, 2006.
- [5].A. Suhendi, M. M. Munir, H. Mahfudz, M. Abdullah, and Khairurrijal: Temperature and humidity loggers using SHT11 sensor and MCS-51 based microcontroller, **International Conference on Mathematics and Natural Sciences 2006**, Bandung, November, 2006.
- [6].A. Suhendi, M. M. Munir, M. Abdullah, and Khairurrijal: Upgrading software and hardware of Keithley 617 electrometer, **International Conference on Mathematics and Natural Sciences**, Bandung, November, 2006.
- [7].Surachman, A. Suhendi, M. M. Munir, and Khairurrijal: Cygnal microtrainer as an educational hardware for learning microcontroller system, **International Conference on Mathematics and Natural Sciences**, Bandung, November, 2006.
- [8].I. Chandra, M. M. Munir, A. Suhendi, M. Abdullah, and Khairurrijal: Water quality

- monitoring system with telemetry over GSM, **Environmental Technology and Management Conference**, Bandung, September 2006.
- [9].M. M. Munir, A. Suhendi, and Khairurrijal, Inexpensive I-V meter for semiconductor characterization in electronics education, **Asian Physics Symposium**, Bandung, December, 2005.
- [10].M. M. Munir, A. Suhendi, and Khairurrijal, A wide range logarithmic electrometer for characterizing MOS capacitors with nanometer-thick oxides, **International Conference on Instrumentation, Communications and Information Technology**, Bandung, August, 2005.
- [11].A. Suhendi, M. M. Munir, Khairurrijal, A four probe technique using logarithmic electrometers for resistivity measurement, **International Conference on Instrumentation, Communications and Information Technology**, Bandung, Indonesia, August, 2005.

RESEARCH/PROJECT EXPERIENCE

Activities	Place	Year
GaSe nanosheets for optoelectronic applications	Telkom University.	2016-present
Pengembangan Sistem Kontrol Maximum Power Point Tracking (MPPT) Adaptif untuk Pembangkit Listrik 100 Watt Arus Searah	Telkom University.	2016
Rancang Bangun Alat Uji Turbin Generator Sistem Pembangkit Listrik Tenaga Pikohidro Skala Laboratorium	Telkom University.	2016
Magnetic Material Dispersion and Deposition	Hiroshima University.	2013-2015
Designing and Developing of Controllable Nanoparticle Synthesis system	Hiroshima University.	2010-2013
Designing and Developing of Security System	Rock Fluid Imaging Lab.	2008-2010
Designing and Developing of Seismic Amplifier Module	Department of Physics, ITB	2008
Designing and Developing of C-V Meter	Department of Physics, ITB	2007
Designing and Developing of Induced Polarity I-V Meter	Department of Physics, ITB	2007
Designing and Developing of Interface for H ₂ S Measurement System	Department of Physics, ITB	2006
Designing and Developing of Four Point Probe for Resistivity Measurements	Department of Physics, ITB	2005
Designing and Developing of I-V Meter for Semiconductor Characterization	Department of Physics, ITB	2005
Designing and Developing of Weather Station and Data Logging	Department of Physics, ITB	2005
Designing and Developing of Radio Telemetry for Experimental Physics	Department of Physics, ITB	2005

Fabricating of Single Board Computer based on Microcontroller AT89S52/ AT89S8252	Department of Physics, ITB	2003 – 2005
Designing and Developing of Automatic Water Level Recorder and Data Logging	Department of Physics, ITB	2004
Design of short circuit protected Power Supply	Department of Physics, ITB	2003
Design and manufacture of home security system based on Microcontroller AT89C52	PT. Megatronics Pratama	2000-2001
Design and manufacture of Automatic Meter Reading system based on Microcontroller AT89C52	PT. Megatronics Pratama	1999-2000
Design and modification of Error Calculator Unit based on Zilog Z8E04 Microcontroller	PT. Mecoindo Schlumberger	1999
Dual System for Specialized Technical High School Program: Turbo Pascal 6.0 Programming	PT. INTI Bandung	1997

WORKING EXPERIENCES

Activities	Place	Year
Lecturer of Telkom University	Department of Physics Engineering, Telkom University	2015
Engineer at PT. RockFluid Imaging Lab.	Rock Fluid Imaging Lab.	2009
Lecturer of Electronics and Instrumentation	Department of Computer Engineering, Unikom	2008
Teaching Assistant of Selective Instrumentation Course	Department of Physics, ITB	2007
Teaching Assistant of Industrial Instrumentation Course	Department of Physics, ITB	2006
Teaching Assistant of Microcontroller for Industry Short Course	Department of Physics, ITB	2006
Teaching Assistant of Measurement Method and Data Analysis Course	Department of Physics, ITB	2005
Teaching Assistant of Industrial Electronics Short Course	Department of Physics, ITB	2005
Teaching Assistant of Microcontroller AT89S8252/S52 Short Course	Department of Physics, ITB	2003 – 2005
Lab. Assistant of Data Analysis and Measurement Course	Department of Physics, ITB	2003 – 2005
Teaching Assistant of Basic Electronics Short Course	Department of Physics, ITB	2005
Teaching Assistant of Advanced Electronics	Department of Physics, ITB	2005
Teaching Assistant of Instrumentation System	Department of Physics, ITB	2004

Teaching Assistant of Basic Electronics Short Course	Department of Physics, ITB	2004
Teaching Assistant of Elementary Physics Laboratory	Department of Physics, ITB	2003 – 2004
Teaching Assistant of Basic Electronics	Department of Physics, ITB	2002 – 2003
Lab. Assistant of Elementary Physics Laboratory	Department of Physics, ITB	2002 – 2003
Teaching Assistant of Basic Electronics	Department of Physics, ITB	2001 – 2002
Vice Coordinator of Basic Electronics Experiment	Laboratory of Electronics & Instrumentation, Department of Physics, ITB	2003
Lab Assistant of Basic Electronics	Laboratory of Electronics & Instrumentation, Department of Physics, ITB	2002

TECHNICAL SKILLS

Specific Skills	<ul style="list-style-type: none"> • Instrumentation of Physics • Instrumentation of Geophysics • Aerosol • Nanomaterials • Radio Telemetry System • Measurement System • Sensors System • Data Acquisition System • MCS-51 Microcontroller Family System Development both Hardware and Software. • PCB design using Protel and Proteus
Computer	<ul style="list-style-type: none"> • Software : MS Office, Electronics Workbench, Visio, Protel 99SE, Corel Draw, Franklin Compiler. • Programming : Pascal, Borland Delphi, C and Assembly Language for MSC-51 microcontroller, PLC. • Internet : TCP/IP Protocols • Hardware : PC Assembling, Trouble-shooting
Electronics	<ul style="list-style-type: none"> • Interfacing : PC's Printer Port, RS-232, RS-485, I2C Protocol/SMBus, UART, SPI • Digital : ADC, DAC, DAQ • Analog : Op-Amp, Instrumentation System, Audio Devices, Sensors