

CURRICULUM VITAE

Name : Prof. Dr. Basuki Widodo, MSc.

Date of Birth : 5th June 1965

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Education

BSc in Mathematics, Institute of Technology Sepuluh November, Surabaya, Indonesia–1988

MSc in Mathematics, University of Leeds, UK– 1996

PhD in Mathematics, University of Leeds, UK– 2000

Post–Doctoral : TU Wien, Vienna, Austria – 2006

Research Interests

Computational Fluid Dynamics, Mathematical Modelling, Numerical Methods,
Numerical Simulation, Applied Mathematics

Present Occupation

Position : Professor of Mathematical Modeling and Computer Simulation (since 2007).

Organization : Institute of Technology Sepuluh November, Surabaya

Professional Experience

- a. Member of ITS Advisory Council
- b. Chairman of ITS Advisory Commission
- c. Chairman of Indonesian Mathematical Society (IndoMS) for the East Java Division
- d. Secretary of Ethics and Discipline Committee– ITS Senate

Honours /Awards

- a. Best Presenter, Higher Education Graduate Research Grant, 2007.
- b. Dwidya Satya Perdana (for 20 years' service at ITS), 2009.
- c. Dwidya Satya Madya (for 25 years' service at ITS), 2014.

Courses Taught / Teaching Experience

1. Postgraduate courses

Subject of Course	Qualification	Course Credits
Engineering Mathematics	MSc Program	2
Computer Programming Using MATLAB/FORTRAN	MSc Program	2
Mathematical Modeling for Hydrology Engineering	MSc Program	2
Mathematical Modeling and Simulation	MSc Program	3
Numerical Computation	MSc Program	3
Environmental Modeling	MSc Program	3
Advanced Fluid Mechanics	PhD Program	3

2. Undergraduate courses

Subject of Course	Qualification	Course Credits
Calculus I	BSc Program	3
Calculus II	BSc Program	3
Computer Programming	BSc Program	3
Mathematical Modeling	BSc Program	3
Simulation and Modeling	BSc Program	2
Transfer Phenomenon	BSc Program	2
Complex Variable	BSc Program	3
Numerical Methods	BSc Program	3
Introduction to Fluid Mechanics	BSc Program	3
Integral Equation	BSc Program	3
Introduction of Boundary Layer Problem	BSc Program	3
Finite Element Method/Boundary Element Methods	BSc Program	2
Special Topics in Operations Research	BSc Program	3

Supervised Theses (Master Program Scholarship at ITS)

1. Bambang Margono(2008) on *Mathematical model construction of river watershed pollutant distribution.*
2. Setiyaningsih (2009) on *Modeling and simulation of power decrease in gas mixing-induced by Liquida- The double impeller.*
3. Achmad Machsun Haji (2009) on *Modeling and simulation of fluid flow profiles in Liquida - The mixing gas-induced by double impeller.*
4. Kusbudiono (2011) on *Effect of logistic growth model against Dengue fever epidemic.*
5. Zeth Arthur Leleury (2012) on *Application of finite element method in analyzing acoustic qualities of polyurethane foam.*
6. Ikhtisholiyah (2013) on *Hydrodynamic effects of pollutants in spreading patterns in the confluence of two rivers.*
7. Tony Yulianto (2013) on *The determination of the coordinates of potential pollutant sources in the confluence of two rivers.*
8. Sri Suryanti (2013) on *Hydrodynamic correlation with the spread of pollutants in the confluence of two rivers.*

9. Dimas Avian Maulana (2013) on *The pattern of spread of pollutant total suspended solid in the confluence of two rivers.*
10. Dewi Nurmalitasari (2014) on *Dispersion of pollutants and sediment at the confluence of two rivers.*
11. Rani Kurnia Putri (2014) on *The influence of hydrodynamics on the spread of pollutants and sedimentation at the confluence of two rivers.*
12. Miranda Eliyan (2014) on *Determination of potential sources of pollutants and sediment in the area of the confluence of two rivers flow.*
13. Uswatun Hasanah (2014) on *Hydrodynamic correlation with the spread of pollutants and sedimentation at the confluence of two rivers.*

Supervised Theses(PhD Program Scholarship)

No	Thesis Title	Student Name / Year	Faculty / University
1	Optimal model management clinic in order to reduce maternal mortality in type C hospital East Java provincial government	Sardjana 2000 – 2003	Medicine / Airlangga University
2	Construction captured CO ₂ equivalent mathematical models in shade plants to reduce pollutants CO, forest model study of Surabaya	Thomas Pentury 2000 – 2003 (Rector of Univ of Pattimura Ambon 2011-2016)	Mathematics / Airlangga University
3	Flow characteristics of water, sediment and change of the bottom of the river in the confluence of creeks	Minarni Nur Trilita 2004 – 2009	Civil Engineering / ITS
4	Threshold analysis pest control vacuum pods <i>Riptortus Linearis F.</i> in soybean plants (<i>Glycine Max L. Merril</i>)	Achmadi Susilo 2005–2007 (Deputy vice Cancelor of Cooperation Affairs 2013-2017)	Mathematics / Airlangga University
5	Construction of river water hydrodynamic model with pollutant spreading on body of river	Nieke Karnaningroem 2002–2006 (Deputy vice PostGraduate Director for financial Affairs 2007-2011)	Civil Engineering / ITS
6	Mathematical model construction coalition between influenza virus H5N1 and H1N1 pandemic	Hariyanto 2008–2014	Mathematics / Airlangga University
7	Limitations of fractional integral operators in Morray space	Mohammad Imam Utoyo 2008–2011	Mathematics / Airlangga University
8	Experimental and numerical study of viscous and wave interference constraints	Andi Jamuluddin 2009–2012	Marine Engineering / ITS

	in hull catamaran		
9	Completion of performance two wheeled inverted pendulum robot using a combination of sliding mode control and fuzzy type 2	Mardlijah 2009–2014	Electrical Engineering / ITS
10	Numerical study of passive increase effectiveness of type-I controller in front of main circular cylinder inhibition against drag force	Chairul Imron 2009–2014	Mathematics / Airlangga University
11	ENMG automation development through interpretation software to support more comprehensive and fast on CTS and PNP disease	Ettie Rukmigarsari 2009–2014 (in progress)	Medicine / University of Brawijaya
12	Parts inventory optimization: Consider redundancy and placement in multi-echelon systems	Valeriana Lukitosari 2009–2014 (in progress)	Industrial Engineering / ITS
13	Development of high rate algae pond (HRAP) as a method bioremediasi Boezem polluted urban wastewater	Agus Slamet 2009–2014 (in progress)	Environmental Engineering / ITS
14	Construction of solution on the problem of sedimentation volume calculation in the confluence of two rivers	InulaksitoWibowo 2009–2014 (in progress)	Mathematics / Airlangga University
15	Determination of the effective zone in fibrous peat soil stabilized with lime and mixed fly ash	Faisal EstuYulianto 2011–2014 (in progress)	Civil Engineering / ITS
16	Economic evaluation for short life cycle products in closed-loop supply chain with remanufacturing	Gan Shu San 2011–2014	Industrial Engineering / ITS
17	Calculation methods of spatial rainfall using meshless local Petrov-Galerkin method	Soebagio 2011–2014 (in progress)	Civil Engineering / ITS

Grants

1. **Widodo, B.** (2004–2006) Grants of Postgraduate Research Team from Ministry of National Education (Higher Education): *Construction of a hydrodynamic model on river pollution due to deployment of pollutants.*
2. Karnaningroem, N. and **Widodo, B.** (2008) Grant of Applied Research Incentive Program: *Hydrodynamic model application on deployment of pollutants to runoff wastewater in river pollution.*
3. **Widodo, B.**(2010)Teaching Grant in English: *Cooperative learning approach in computational fluid dynamics.*
4. **Widodo, B.**(2011) Professor Research Grant: *Construction, completion and numerical simulation of river sedimentation problems using meshless local Petrov-Galerkin (MLPG) method.*

5. **Widodo, B.**(2012) Laboratory Research Grant: *Effect of hydrodynamic dispersion of pollutants in a river.*
6. Utama, I.K.A.P., **Widodo, B.**and Jamaluddin, A. (2012) Competence Grant from Ministry of Culture and Education, Indonesia: *Experimental and numerical simulation study of symmetrical and not symmetrical constraints hull catamaran vessel in longitudinal and transverse directions.*
7. **Widodo, B.**, Kamiran, Asiyah, N. and Farida A.W. (2012–2014) Laboratory Research Grant: *Mathematical model and computer simulation of dispersion effect on hydrodynamics pollutants in the confluence of two rivers.*
8. Apriliani, E., Widodo, B., Mukhlash, I. and Sanjoyo, B.A. (2013-2014) Universities Leading Research Grant: *Modeling and Simulation of Two Dimensional Spreading Debris Flow to Predict Disaster Prone Areas (Case Study lava flow in Gendol slopes of Merapi).*
9. Endah, N., Widodo, B. and Estu, F. (2013-2015) Competence Grant from Ministry of Culture and Education, Indonesia: *Numerical Model for Determining the Size Fibrous Peat Should be Stabilized For Water Filtration Effect of Neighborhood Against Behavior Change Peat, Stabilized Minimum.*
10. Asiyah, N, Widodo, B., Wahyudi, S. and Winarko, M.S. (2013-2015) Universities Leading Research Grant: *Spread of Infectious Disease Dynamics A Living In The Heterogeneous Population Approach Group Multi Model.*
11. Widodo, B and Imron, C. (2014-2016) Universities Leading Research Grant: *Construction Model Mathematics and Computer Simulation Convection Flow Fluid Viscous-Elastic At Boundary Layer.*
12. Widodo, B and Imron, C. (2014-2016) Universities Leading Research Grant: *Numerical Simulation of Unsteady Fluid Flow and Heat Transfer On The magneto-hydrodynamic Boundary Layer of Viscous Fluid Flow And Micropolar Through An Object.*

Community Services

Application Management and Appropriate Technology in Processing Seaweed Food Material.

International Publications

1. **Widodo, B.**(1997) The free surface fluid flow over a step of an arbitrary shape in a channel, *Journal of Engineering Analysis with Boundary Elements (EABE)*, vol. **19**, 299-308.
2. **Widodo, B.**(1999)Flow induced by a submerged line sink in a three-layer fluid under the effects of both gravity and surface tension at infinite Froude numbers, in *International Series on Advance in Boundary Elements* vol. **6** (eds.Brebbia, C.A. and Power, H.)chapter 21, 387-396, WIT Press, Southampton, UK.
3. **Widodo, B.**(2001) Withdrawal of fluid through a submerged line sink from a three layer fluid under effects of both gravity and surface tension at infinite Froude numbers, *Journal Technology Industry and Information –University of Surabaya*, vol. 2(2),86-91.
4. Karnaningroem, N., Anwar, N., **Widodo, B.**, Hadi, W., Ediyatno, Wulandari, S., Nizam, F. and Maharani, A. (2006) Hydrodynamic of pollutant dispersion in river, *Majalah IPTEK – ITS*, vol. **17**(4), 136-146.
5. **Widodo, B.** and Siing, M. (2011) Numerical solution of flood routing model using finite volume methods, *International Journal of Studies in Nonlinear Sciences*, vol. **2**(1), 40-45.

6. **Widodo, B.**, Fatahilah, A. and Rahayuningsih, T. (2011) Mathematical modeling and numerical solution of Iron corrosion problem based on condensation chemical properties, *Australian Journal of Basic and Applied Sciences*, vol. **5**(1), 79-86.
7. **Widodo, B.** (2012) The effects of hydrodynamic pollutant towards disperse in a river, *International Journal of Contemporary Mathematical Sciences (IJCMS)*, vol. **7**(45), 2229-2234.
8. Hanif, A. and **Widodo, B.** (2012) Distribution of total suspended solid concentration in a river, *Jurnal IPTEK-ITS*, vol. **23**(3), 87-91. (www.iptek.its.ac.id.)
9. Utoyo, I., Nusantara, T., **Widodo, B.** and Suhariningsih (2012) Fractional integral operator and Olsen inequality in the non-homogeneous classic Morrey space, *International Journal of Mathematical Analysis*, vol. **6**(31), 1501-1511.
10. Utoyo, I., Nusantara, T., **Widodo, B.** and Suhariningsih (2012) The necessary and sufficient condition for boundedness of fractional integral operator in Morrey space on non-homogeneous spaces, *Far East Journal of Mathematical Sciences (FJMS)*, vol. **69**(1), 139-153.
11. Agung, I.G.A., Suhariningsih, Triono and **Widodo, B.** (2012) Determination of physical parameter model for the photo film mammographic X-ray results on the breast cancer histology classification, *International Journal of Contemporary Mathematical Sciences (IJCMS)*, vol. **7**(45), 2235-2244.
12. Jamaluddin, A., Utama, I.K.A.P. and **Widodo, B.** (2012) Experimental investigations into the resistance components of asymmetrical catamarans with variation of hull spacing and stagger, *International Journal of Small Craft Technology*, Transactions of the Royal Institution of Naval Architects, vol. **154** (Part B1), 33-38.
13. Jamaluddin, A., Utama, I.K.A.P. and **Widodo, B.** (2012) Experimental investigations into the Resistance components of symmetrical catamarans with variations in hull clearances and staggers, *International Journal of Small Craft Technology*, Transactions of the Royal Institution of Naval Architects, vol. **154** (Part B1), 13-18.
14. Hariyanto, **Widodo, B.**, Budiantara, I.N. and Nidom, C.A. (2013) The construction of a model of pre-coalition between H1N1-p and H5N1 influenza virus in Indonesia, *International Journal of Applied Mathematical Sciences*, vol. **7**(99), 4899-4907.
15. Wibowo, I.L. and **Widodo, B.** (2013) Numerical simulation on calculating volume sedimentation on two rivers confluences, *Far East Journal of Mathematical Sciences (FJMS)*, vol. **76**(2), 223-233.
16. Imron, C., Suhariningsih, **Widodo, B.** and Yuwono, T. (2013) Numerical simulation of fluid flow around circular and I-shape cylinder in a tandem configuration, *Applied Mathematical Sciences*, vol. **7**(114), 5657-5666.
17. Mardlijah, Jazidie, A., **Widodo, B.** and Santoso, A. (2013) A new combination method of firefly algorithm and T2fsmc for mobile inverted pendulum robot, *Journal of Theoretical and Applied Information Technology*, vol. **47**(2), 824-831.
18. **Widodo, B.** (2013) The influence of hydrodynamics on the spread of pollutant in the confluence of two rivers, *International Journal of Applied Mathematical Sciences*, vol. **7**(123), 6115-6123.
19. Jamalluddin, A., Utama, I.K.A.P., **Widodo, B.** and Molland, A.F. (2013) Experimental and numerical study of the resistance component interactions of Catamarans, *International Journal of Engineering for the Maritime Environment*, vol. **227**(1), 51-60.

20. **Widodo, B.**, Kamiran, Asiyah, N. Widjayati, F.A. and Maulana, D.A. (2015) Total suspended solid (TSS) pollutant dispersion pattern in a confluence of two rivers, *International Journal of Advances and Applications in Fluid Mechanics*, Volume **17**(2).
21. Gan, S.S., Pujawan, I.N., Suparno, Widodo, B., (2015) Pricing Decision model for new and remanufactured short life-cycle products with time-dependent demand, *International Journal of Operation Research Perspective*, vol. **2**(1), 1-12.

National Publications (in Indonesian)

22. **Widodo, B.**(2002) Profil Permukaan Bebas dari Aliran Fluida di Atas Gundukan Dalam Saluran Terbuka di Bawah Pengaruh Gravitasi dan Tegangan Permukaan, *Jurnal Natural*, vol. **6** (Edisi Khusus), 68–76.
23. **Widodo, B.** (2003) Pengembangan Model Matematika Penyerapan CO₂ oleh Tanaman Glodogan di Tiga Jalan Kota Madya Surabaya, *Jurnal Teknologi dan Lingkungan (TEKNOLING)*, vol. **1**(1), 13–21.
24. **Widodo, B.** (2003) Pengaruh Gravitasi di Atas Gundukan Dalam saluran Terbuka, *Jurnal Matematika dan Komputer*, vol. **6**(1), 27–40.
25. **Widodo, B.** (2003) Aplikasi Teknik Integral Batas (TIB) pada Aliran Fluida di Permukaan Bebas, *Majalah IPTEK – ITS*, vol. **14**(4), 165–173.
26. **Widodo, B.**(2004) Model Matematika dan Analisanya dari Pemenuhan Kebutuhan Air Bersih di Suatu Kompleks Perumahan, *Jurnal Limits (Journal of Mathematics and Its Applications)*, vol. **1**(1), 63–68.
27. Sardjana and **Widodo, B.**(2004) Peramalan Program FORTRAN Terhadap Kematian Ibu di Rumah Sakit Kelas C Jawa Timur (2005-2010) Berdasarkan Variabel-Variabel Dominan, *Jurnal Statistika*, vol. **4**(2), 167–172.
28. Karnaningrum, N., Anwar, N., **Widodo, B.**, Hadi, W., Ediyatno dan Wulandari, S. (2004) Penyebaran Polutan di Sungai dengan Aliran Horizontal 2 (Dua) Dimensi dengan Metode Beda Hingga Eksplisit, *Jurnal Teknologi dan Lingkungan (TEKNOLING)*, vol. **2**(2), 36–47.
29. **Widodo, B.** and Kartika, R.B. (2005) Analisa Distribusi Panas pada Alat Pengering Rumput Laut (Studi Kasus pada Alat Pengering Rumput Laut di Situbondo), *Jurnal Matematika*, vol. **8**(2), 47–53
30. Karnaningrum, N., Anwar, N., **Widodo, B.**, Mahjarani, A. and Winahyu, R. (2005) Modelling Matematika Aliran di Sungai dengan Metode Beda Hingga, *Jurnal Purifikasi*, vol. **6**(1), 85–90.
31. Karnaningrum, N., Anwar, N., Hadi, W., Ediyatno, **Widodo, B.** dan Nizam, F. (2005) Penerapan Metode Beda Hingga pada Dispersi Polutan, *Jurnal Aksial*, vol. **7**(1), 57–70.
32. **Widodo, B.**(2006) Simulasi Model Penyebaran Polutan di Sungai pada Aliran Laminer, *Jurnal Aksial*, vol. **7**(3), 179–188.
33. **Widodo, B.**(2006) Simulasi Model Pengaruh Sudut Pertemuan Sungai Utama dan Anak Sungai Terhadap Profil Perubahan Sedimen Pasir pada Daerah Pertemuan Sungai, *Jurnal Aksial*, vol. **8**(3), 198–204.

International Conference Proceedings

1. **Widodo, B.**(1997) The free surface fluid flow over a step in a channel under the effects of gravity and surface tension, *Proceedings First UK Conference on Boundary Integral Methods*, (eds. Elliott, L., Ingham, D.B. and Lesnic, D.), University of Leeds, UK, pp. 287-296.

2. **Widodo, B.**(1998)The critical local Froude number for which waves first occur on the free surface fluid flow over a step in a channel under the effect of gravity, *Proceedings 3rdIndonesian Students Scientific Meeting*, University of Paderborn, Germany, pp. 57-64.
3. **Widodo, B.**(1999)Withdrawal of fluid through a line source from a three-layer fluid under the effects of both gravity and surface tension at infinite Froude numbers, *Proceedings Science and Technology Meeting*, University of Leeds, UK, pp. 142-147
4. **Widodo, B.**(1999)The effects of both gravity and surface tension on free surface fluid flow which is induced by a submerged line sink/source in a three-layer fluid at infinite Froude number, *Proceedings 4thIndonesian Students Scientific Meeting*, University of Kassel, Germany, pp. 300-303.
5. Kusno,and **Widodo, B.**(2000) The contribution of pondok pesantren in Indonesian National Education, *Proceedings Education Conference 2000*, University of Leeds, UK.
6. **Widodo, B.**(2004) Withdrawal of fluid through a submerged line sink/source form a three layer fluid under the effects of both gravity and surface tension, *Proceedings International Seminar on the Early Warning System of Disasters*, ITS, Surabaya, Indonesia, pp. C98-C102.
7. **Widodo, B.**(2005)Free surface fluid flows induced by a submerged sink in a three layer fluid under the effects of surface tension, *Proceedings International Conference on Applied Mathematics (ICAM2005)*, Institute of Technology Bandung, Indonesia.
8. Setyoprato, P., Mariana, S., Soeryanto, N. and **Widodo, B.**(2005) Kinetic and equilibrium studies of Cr(VI) adsorption from aqueous solution by means of activated Carbon, *Proceedings Regional Symposium on Chemical Engineering*, Hanoi, Vietnam, pp. 122–125.
9. Karnaningrum, N., Anwar, N., **Widodo, B.** and Maharani, A. (2006) Hydrodynamic model on pollutant dispersion in river, *Proceedings International Environmental Technology & Management Conference*, Bandung, Indonesia.
10. Ariani, S. and **Widodo, B.**(2007) Dynamic model of scour in channel bend on the river junctions, *Proceedings International Seminar on Natural Sciences and Applied Natural Sciences*, Yogyakarta, Indonesia.
11. Saptaningtyas, F.Y. and **Widodo, B.**(2007) Dynamical two dimension model of contour sand sediment transport in channel junctions using finite volume, *Proceedings International Seminar on Natural Sciences and Applied Natural Sciences*, Yogyakarta, Indonesia.
12. Siing, M. and **Widodo, B.** (2011) Numerical solution of flood routing model using finite volume methods, *Proceedings International Conference on Numerical Analysis and Optimization*, University of Ahmad Dahlan, Yogyakarta, Indonesia.
13. **Widodo, B.** (2011) Characteristics sedimentation study on the confluence of two rivers using meshless local Petrov-Galerkin method and Fluent simulation, *Proceedings International Conference on Research and Education in Mathematics*, Institute of Technology Bandung, Indonesia.
14. **Widodo, B.**(2011) Numerical simulation of flow routing for simulating flood propagation in river flow, *Proceedings 5thInternational Conference on Research and Education in Mathematics (ICREM5)*, Institute of Technology Bandung, Indonesia.
15. **Widodo, B.,** Sulistyono, B.A. and Setiawan, (2012) Correlation between the river and pollutant of hydrodynamic dispersion, *Proceedings International Conference on Mathematics, Statistics and Its Applications (ICMSA 2012)*, Sanur, Bali, Indonesia.

16. Ikhtisoliyah and **Widodo, B.** (2013) The influence of hydrodynamic on the spread of pollutants in the confluence of two rivers, *Proceedings 4th International Seminar on Environmental Engineering (ISEE 2013)*, University of Udayana, Denpasar, Bali, Indonesia.
17. Yulianto, T. and **Widodo, B.** (2013) Determining the coordinate of potentially pollutant sources in the confluence of two rivers, *Proceedings 4th International Seminar Environmental Engineering (ISEE 2013)*, University of Udayana, Denpasar, Bali, Indonesia.
18. Suryanti, S. and **Widodo, B.** (2013) Correlation of hydrodynamic with pollutant dispersion on confluence of two rivers, *Proceedings 4th International Seminar Environmental Engineering (ISEE 2013)*, University of Udayana, Denpasar, Bali, Indonesia.
19. Maulana, D.A. and **Widodo, B.** (2013) Total suspended solid pollutant dispersion pattern in a confluence, *Proceedings 2nd Conference on Industrial and Applied Mathematics (EASIAM – CIAM 2013)*, Institute of Technology Bandung, Indonesia.
20. **Widodo, B.** (2013) Analyze characterization of polyurethane foam sound absorption using finite element method, *Proceedings Asian Mathematical Conference (AMC2013)*, Busan, South Korea.
21. **Widodo, B.** (2013) Dispersion of pollutants in the confluence of two rivers when hydrodynamic of the rivers are included, *Proceedings International Seminar on Mathematics in Industry (ISMI- 2013)*, University of Technology Malaysia, Nusajaya, Malaysia.
22. Gan, S.S., Pujawan, I.N., Suparno and **Widodo, B.** (2013) Pricing decision model for short life-cycle product in a closed-loop supply chain with remanufacturing, *ISDSI Proceedings International Conference 7th Annual Meeting and 5th International Conference on Operation and Supply Chain Management, December 28-30 2013, IMI, New Delhi India.*
23. Gan, S.S., Pujawan, I.N., Suparno and **Widodo, B.** (2013) The effect of random yield of product returns to the pricing decisions for short life-cycle product in a closed-loop supply chain, *Proceedings 6th International Conference on Operation and Supply Chain Management, December 10-13 2014, Denpasar Bali-Indonesia.*
24. Hasanah, U., **Widodo, B.** and Setiawan (2014) The correlation between pollutants, sedimentation and hydrodynamics elements in a confluence of two rivers, *Proceedings International Conference on Statistics and Mathematics (ICSM 2014)*, Institute of Technology Sepuluh Nopember, Surabaya, Indonesia.
25. Putri, R.K. and **Widodo, B.** (2014) The influence of hydrodynamics on the spread of pollutants and sedimentation in the confluence of two rivers, *Proceedings International Seminar on Innovation in Mathematics and Mathematics Education (ISIM-MED 2014)*, University Negeri Yogyakarta, Indonesia.
26. Nurmalitasari, D. and **Widodo, B.** (2014) Pollutant and sedimentation dispersion pattern in the confluence of two rivers, *Proceedings International Seminar on Innovation in Mathematics and Mathematics Education (ISIM-MED 2014)*, University Negeri Yogyakarta, Indonesia.
27. **Widodo, B.** and Yulianto, T. (2014) Determination of pollutant source location at the confluence of two rivers, (poster) *Proceedings International Congress of Mathematicians (ICM2014)*, Seoul, South Korea.
28. Eliyan, M. and Widodo, B. (2014) The Implementation of Meshless Local Petrov Galerkin (MLPG) Method for Determine Pollutant Sources in Brantas River, *Proceedings International Seminar on Innovation in Mathematics and Mathematics Education (ISIM-MED 2014)*, University Negeri Yogyakarta, Indonesia.
29. Widodo, B., Asiyah, N., Wahyudi, S. and Winarko, M.S. (2014) Spreading Dynamic Model of a Contagious Disease in Heterogenic Population of Living Beings Using Multi Group Model

Approach, *International Conference on Mathematics, Statistics, and Financial Mathematics 2014 (ICMSFM 2014)*, Universiti Tunku Abdul Rahman (UTAR), Kuala Lumpur-Malaysia.

National Conference Proceedings (in Indonesian)

30. **Widodo, B.**(2001) Penerapan Teknik Integral Batas (TIB) Pada Aliran Fluida di Permukaan Bebas untuk Identifikasi Gelombang Pertama kali Terjadi, *Pros. Seminar Nasional Pasca Sarjana I*, Institute of Technology Sepuluh November, Surabaya.
31. **Widodo, B.**(2002) Pengaruh Gravitasi dan Tegangan Permukaan pada Aliran Fluida di Atas Gundukan Dalam Saluran Terbuka, *Pros. Seminar Nasional Dalam Rangka Konferda Himpunan Matematika Indonesia Wilayah Jawa Tengah dan DIY*, University of Diponegoro, Semarang.
32. **Widodo, B.**(2002) Aplikasi Teknik Integral Batas (TIB) pada Aliran Fluida di Permukaan Bebas, *Pros. Seminar Nasional Dalam Rangka Konferda Himpunan Matematika Indonesia Wilayah Jawa Tengah dan DIY*, University of Diponegoro, Semarang.
33. **Widodo, B.**(2003) Distribusi Suhu pada Cincin Berongga dengan Sirip yang Berpenampang Bujur Sangkar, *Pros. Seminar Nasional Kejuangan Teknik Kimia*, University of Pembangunan National Veteran, Yogyakarta.
34. **Widodo, B.**(2003) Model Matematika Penyerapan CO₂ oleh Tanaman Glodogan Tiang Dalam Rangka Membantu Program Langit Biru di Surabaya, *Pros. Seminar Nasional Dalam Rangka Konferda Himpunan Matematika Indonesia Wilayah Jawa Tengah dan DIY*, University of Sebelas Maret, Surakarta.
35. **Widodo, B.**(2003) Penyelesaian Numerik dari Permasalahan Aliran Fluida di Permukaan Bebas di Atas Gundukan Berbentuk Sebarang dalam Suatu Kanal, *Pros. Seminar Nasional Matematika dan Statistika*, Institute of Technology Sepuluh November, Surabaya.
36. **Widodo, B.**(2003) Aliran Fluida di Permukaan Bebas yang Dipengaruhi oleh Gravitasi dan Tegangan Permukaan, *Pros. Seminar Nasional Perkembangan dan Aplikasi Teknologi Lingkungan Dalam Menghadapi Era Global*, PDAM, Surabaya.
37. **Widodo, B.**(2004) Analisa Proses Absorpsi CO₂ dengan H₂O di Dalam Packed Column Secara Isotermis, *Pros. Seminar Nasional Perkembangan Riset dan Teknologi di Bidang Industri*, University of GadjahMada, Yogyakarta.
38. **Widodo, B.,** Yuliani, V. and Saputri, J. (2004) Penyelesaian Numerik dari Model Proses Absorpsi NH₃ dengan H₂O di Dalam Packed Column Secara Isotermis, *Pros. Seminar Nasional KMN XII*, University of Udayana, Denpasar, Bali.
39. **Widodo, B.** and Rahayuningsih, T. (2004) Konstruksi Model Matematika dari Proses tangkapan CO₂ dalam Rangka Penataan Ruang Hijau guna Perlindungan Udara dan Publik Kota Surabaya, *Pros. Seminar Nasional Basic Science I*, Malang.
40. Karnaningrum, N., Anwar, N., **Widodo, B.**, Hadi, W., Ediyatno and Wulandari (2004) Penyebaran Polutan di Sungai Dengan Aliran Horizontal 2 (dua) Dimensi dengan Metode Beda Hingga Eksplisit, *Pros. Seminar Nasional Lingkungan Hidup*, Institute of Technology Sepuluh November, Surabaya.
41. Trilita, M.N., Anwar, N. and **Widodo, B.**(2004) Model Matematik Morfologi Sungai, *Pros. Seminar Nasional Pascasarjana IV*, Institute of Technology Sepuluh November, Surabaya.
42. Karnaningrum, N., Anwar, N., Hadi, W., Ediyatno, **Widodo, B.** and Wulandari, S. (2004) Pola Penyebaran Polutan di Sungai dengan Aliran Horisontal 2 Dimensi, *Pros. Seminar Nasional Pasca Sarjana IV*, Institute of Technology Sepuluh November, Surabaya.

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Professional Organizations / Scientific

1. Indonesian Mathematical Society (IndoMS) as Member since 2004.
2. Indonesian Mathematical Society (IndoMS) as Regional Coordinator (Governor) of East Java since January 2013.

I declare that all information in the curriculum vitae is true and willing accountable when the facts do not match.

Surabaya, 8th April 2015



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