

CURRICULUM VITAE



- Name : Dr. Syaifullah Muhammad, ST. M.Eng
Place/date of birth : Kualasimpang Aceh Indonesia, May 15th, 1971
- Address : Jl. Sawah Lr. Cempaka No.2 Lamteh Ulee Kareng Banda Aceh 23118
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syaiful.muhammad@acehresearch.org
- Education/
Qualification : 1. ST (Sarjana Teknik)/Bachelor in Chemical Engineering Syiah Kuala University, 1998
2. M.Eng (Master of Engineering), Chemical Engineering, Curtin University of Technology Australia, 2008 : Nanoparticle Technology in Wastewater Treatment
3. Ph.D (Phylosophy of Doctor), Chemical Engineering Curtin University of Technology Australia, 2013: Advance Oxidation Process in Wastewater Treatment
- Job Experience : 1. Researcher and Lecturer at Chemical Engineering Departement Syiah Kuala University Banda Aceh Indonesia in Organic Chemistry, Math, Kinetics and Catalytic, Communication Skills for Engineer etc, 1999-2013
2. Research Work at Curtin University of Technology Western Australia in Nanozeolite Synthesis and Waste Water Treatment, 2005-2013
3. Research Work at Curtin University of Technology Western Australia in Advance Oxidation Process in Wastewater Treatment, 2009-2013
4. Chairman of Chemical Engineering Computer Center (Pusat Komputer Teknik Kimia/Puskomteka) Syiah Kuala University, 2004-2005
5. Information Technology Coordinator of TPSDP (Technological and Professional Skill Development Project) Asean Development Bank (ADB) Chemical Engineering Departement Syiah Kuala University, 2002-2003
6. Director of Bimbingan Test Bimafika Aceh, 1998-2000
7. General Manager of Bimbingan Belajar SIGMA, 2002-2004
8. Director of Prisma Computer Training Center, 1997-2004
9. Trainer of Quantum Learning and Teaching, Bimbingan Belajar Sigma and Prisma Computer Center, Banda Aceh, 2000-2004.
10. Trainer of Quantum Learning and Teaching, Politeknik Negeri Lhokseumawe, 2004
11. Team Leader Inherent-DIKTI Project of Syiah Kuala University, 2008, Banda Aceh
12. Coordinator of Theme-C of PHKI-DIKTI Project, Syiah Kuala University, 2009
13. Trainer in Public Communication Training, The Annisa Center-ASFC, Banda Aceh, 2009
14. Trainer in Leadership and Organizational Management Training, DIKTI Grant of PHKI (Program Hibah Kompetisi Institusi), Accounting Department of Economic Faculty Syiah Kuala University, 2013
15. Chief of Executive Board of **A for Aceh** 2013
16. Senior Program Assistant and Senior Researcher at International Center for Aceh and Indian Ocean Studies (ICAIOS) Banda Aceh, 2013

17. Trainer at The First Leadership Development and Quantum Learning Training, Chemical Engineering Department Syiah Kuala University, 2014
18. Trainer at Job Internship Program for Student and Fresh Graduate A-FOR-ACEH, 2014.
19. Executive Board Member of Aceh Climate Change Initiative (ACCI) Syiah Kuala University, 2014
20. Chaiman of PATRI (Pusat Kajian Industri) Chemical Engineering Department Syiah uala University, 2014
21. The Secretary of Senate of Engineering Faculty, Syiah Kuala University, 2014
22. Liason Officer (LO) of International Office, Syiah Kuala University, 2014
23. Expert Team Member in Process Engineering of PERGUB KPI (Peraturan Gubernur tentang Kawasan Perhatian Industri) Aceh, 2014
24. Team Leader of Chemical Engineering Department Accreditation, Syiah Kuala University, 2014
25. Team Leader of Student Comparative Industyial Study of Chemical Engineering Department of Unsyiah to Malaysia and Singapura, 2014
26. Field Survey Coordinator (FSC) EPRA-ACDP, URS Australia-Bappeda Aceh, 2014
27. Head of Research and Development Forum Bangun Aceh (FBA) 2015
28. Executive Director of Center for Creative Industry of Syiah Kuala University (CCIS) 2015

Organization

1. President of Association of Indonesia Postgraduate Student and Scholar in Australia (AIPSSA), Perth Western Australia, 2011
2. Chairman of Founder Board of Indonesia Australia Photography Association (IAPA), Perth Western Australia, 2011-present
3. Chairman of Aceh Society of Western Australia (ASWA), Perth Western Australia, 2013
4. Executive Board of KBPK (Komite Bersama Peduli Kemanusiaan), Perth Western Australia, 2009-2013
5. Chaiman of Koperasi Peumawa Banda Aceh, 2009
6. General Secretary ICMI Orsat Western Australia, 2006-2007
7. Chairman of HMI (Himpunan Mahasiswa Islam) Banda Aceh, 1994/1995
8. Chairman of Sigma Harapan Bangsa Foundation, Banda Aceh, 2000-2004
9. Vice chairman Bina Putra Foundation Aceh, 2000-2004
10. Vice Chairman Orbit ICMI Orwil Aceh, 1996-2001

Training

1. Basic Leadership, 1991, Banda Aceh
2. Organization Development, 1993, Banda Aceh
3. Training Methology, 1993, Banda Aceh
4. Advance Leadership, 1994, Bandung
5. Jurnalistic, 1995, Banda Aceh
6. Entrepreneurship, 1996, Singapura
7. Education Comparative, 1996, Malaysia
8. Research Methodology, 1999, Unsyiah, Banda Aceh
9. Written summary university texbook., 2002, Unsyiah
10. Create of Manual Lab Work, 2002, Unsyiah
11. Development of Umbrella Research, 2003, Unsyiah
12. Hight Education Management System, 2003, Unsyiah
13. TOEFL Training, 2004, ITB Bandung
14. English Language Bridging Course, 2005, Perth Western Australia

15. Leadership training, 2006, Perth Western Australia
16. Scanning Electron Microscopy (SEM) Training, Curtin University of Technology Western Australia, 2006.
17. XRD Instrument Training, Curtin University of Technology Western Australia, 2006.
18. TOT training, 2007, Perth Western Australia
19. Workshop of Academic Curriculum Development, Banda Aceh, 2008
20. Workshop of Hysys Software for Chemical Engineer, Banda Aceh, 2009.
21. High Performance Liquid Chromatography (HPLC) Instrument Training, Curtin University of Technology Western Australia, 2009.
22. Gas Chromatography (GC) Instrument Training, Curtin University of Technology Western Australia, 2009.
23. Nitrogen adsorption-desorption (Autosorb-1) instrument training, Curtin University of Technology Western Australia, 2009
24. Nitrogen adsorption-desorption (Micromeritics Gemini 2360) instrument training, Curtin University of Technology Western Australia, 2009.
25. Training of Ball Mill Instrument for Nanosize Sample Preparation, Physic Department of MIPA, Syiah Kuala University, 2013
26. Photovoice Training IAPA, 2013, Perth Western Australia
27. Climate Change Workshop, 2013, KLH, Banda Aceh
28. Workshop in Legal Drafting and Standar Operating Procedure (SOP) on International Cooperation, IPB Bogor, 2014
29. Higher Order Thinking Skills (HOTS) Training University Pendidikan Sultan Idris Malaysia 2014.

- Research Experience :
1. Fermentation of Coconut Milk by *Lactobacillus Plantarum*, 1999
 2. Waste liquid Treatment of Palm Oil Plant with Floatation Method, 2000
 3. Deactivation of Ferro Molibdenum Catalyst, 2001
 4. Regeneration of Ferro Molibdenum Catalyst with impregnation, 2002
 5. Removal of COD in waste water of palm oil plant with an Algae Reactor, 2003
 6. Characterize of $\text{MoO}_3/\text{TiO}_2$ Catalyst and Performance test in Metanol Oxidation, 2003
 7. Synthesis of nanocrystalline zeolite and heavy metal removal, 2005-2007
 8. Advance Oxidation Process in Wastewater Treatment, 2009-2013
 9. Intervensi Teknologi Nanopartikel Pada Limbah Biomassa Sawit dan Mineral Alam Untuk Peningkatan Kualitas Produksi Minyak dan Optimalisasi Pengolahan Limbah Cair Pabrik Kelapa Sawit, MP3EI-DIKTI 2014
 10. Usaha Peningkatan Pendapatan Petani Karet Aceh melalui Penyediaan Bahan Penggumpal Karet Ramah Lingkungan dengan Menggunakan Teknologi Pirolisis Cangkang Sawit, LPSDM Aceh, 2014
 11. Low Emission Strategy: Application of G3-DHS Bio-reactor as an Energy-Efficient and Cost-Effective Domestic Wastewater Treatment System (Construction and Evaluation of a Pilot-Scale in Banda Aceh City), DIKTI 2014

- Presenting paper on National/International Conference : 1. Chesa (Chemical Engineering Science and Application) conference, 2004, Banda Aceh, Indonesia
2. Curtin Engineering Faculty Research Colloquium, 2007, Perth WA
3. Chemeca conference 2007, Melbourne Australia
4. ICEN V Penang Malaysia, 2010
5. Chemeca conference 2011, Sydney, Australia
6. Annual International Conference Unsyiah Banda Aceh, 2011
7. Water congress, Busan Korea, 2012
8. The 5th Sriwijaya International Seminar on Energy and Environmental Science and Technology, Palembang Indonesia 2014
- Publication : 1. Australian Clinoptilolite Tuff for Removal of Metal ion From Wastewater, 2009, Book Chapter in Handbook of Zeolite: Structure, Properties and Applications (Editor : T.W. Wong), Nova Publisher, Australia.
https://www.novapublishers.com/catalog/product_info.php?products_id=20631
2. Chromium and Lead Removal Using Synthesized Nanocrystalline Zeolite, Jurnal Purifikasi, Vol. 10, No.1 Juli 2009, 49-58
3. Heavy Metal Removal from Wastewater Using Synthesized Silicate-1 Nano Crystal, 2011, Jurnal Rekayasa Kimia dan Lingkungan, Vo. 8, No. 1, 1-10.
<http://jurnal.unsyiah.ac.id/RKL/article/view/238/224>
4. Heavy metal removal from wastewater using synthesized ZSM-5 Nanocrystal, ICEN V Proceeding, USM Penang Malaysia
5. Heterogeneous activation of peroxymonosulphate by supported ruthenium catalysts for phenol degradation in water, Journal of Hazardous Materials, 2012, 215-216, 183-190.
<http://www.sciencedirect.com/science/article/pii/S0304389412002026>
6. Coal fly ash supported Co₃O₄ catalysts for phenol degradation using peroxymonosulfate. RSC Advances 2012, 2, (13), 5645-5650.
<http://pubs.rsc.org/en/content/articlelanding/2012/ra/c2ra20346d/unauth>
7. Heterogeneous Catalytic Oxidation of Aqueous Phenol on Red Mud Supported Cobalt Catalysts. Industrial & Engineering Chemistry Research, 51 (2012) 15351–15359.
<http://pubs.acs.org/doi/full/10.1021/ie301639t?prevSearch=%255BContrib%253A%2BSyaifullah%2BMuhammad%255D&searchHistoryKey=>
8. Removal of Phenol Using Sulphate Radicals Activated by Natural Zeolite-Supported Cobalt Catalysts, Journal of Water, Air, & Soil Pollution, November 2013, 224:1721
<http://link.springer.com/article/10.1007%2Fs11270-013-1721-z>
9. Red mud and fly ash supported Co catalysts for phenol oxidation. Catalysis Today 2012, 190 (1), 68-72.
<http://www.sciencedirect.com/science/article/pii/S0920586111007516>
10. Heterogeneous catalytic oxidation of phenol for wastewater treatment using ruthenium catalyst, Proceeding of Chemeca Conference Sydney-Australia, 2011. http://espace.library.curtin.edu.au/R?func=dbin-jump-full&local_base=gen01-era02&object_id=181154

11. Phenol degradation in heterogeneous catalytic oxidation using Co-MCM48 and Co-Natural Zeolite Catalyst, Proceeding of Water Congress, Busan-Korea, 2012. <http://www.iwa2012busan.org/>
12. Phenol degradation on heterogeneous catalytic oxidation by using Cobalt-Natural Zeolite Catalyst, Proceeding of Annual International Conference Syiah Kuala University, Banda Aceh-Indonesia, 2011. <http://www.aic.unsyiah.ac.id/index.php>
13. Catalytic oxidation of toxic organic in aqueous solution for wastewater treatment : a review, Proceeding of TIChE International Conference, Songkhla-Thailand, 2011. http://espace.library.curtin.edu.au/R?func=dbin-jump-full&local_base=gen01-era02&object_id=181151
14. α -MnO₂ activation of peroxymonosulfate for catalytic phenol degradation in aqueous solutions, Catalysis Communications, Volume 26, 5 September 2012, Pages 144-148. <http://www.sciencedirect.com/science/article/pii/S1566736712002002>
15. A comparative study of spinel structured Mn₃O₄, Co₃O₄ and Fe₃O₄ nanoparticles in catalytic oxidation of phenolic contaminants in aqueous solutions, Journal of Colloid and Interface Science 407 (2013) 467–473. <http://www.sciencedirect.com/science/article/pii/S0021979713006152>
16. Activated carbons as green and effective catalysts for generation of reactive radicals in degradation of aqueous phenol, RSC Adv., 2013, 3, 21905 <http://pubs.rsc.org/en/content/articlelanding/2013/ra/c3ra42455c#!divAbstract>
17. Manganese oxides at different oxidation states for heterogeneous activation of peroxymonosulfate for phenol degradation in aqueous solutions, Applied Catalysis B: Environmental 142– 143 (2013) 729–735 <http://www.sciencedirect.com/science/article/pii/S0926337313003871>
18. Different Crystallographic One-dimensional MnO₂ Nanomaterials and Their Superior Performance in Catalytic Phenol Degradation, Environmental Science & Technology, 2013, 47 (11), pp 5882–5887 <http://pubs.acs.org/doi/abs/10.1021/es400878c?prevSearch=Edy%2BSaputra&searchHistoryKey=>
19. Shape-controlled activation of peroxymonosulfate by single crystal α -Mn₂O₃ for catalytic phenol degradation in aqueous solution, Journal of Applied Catalysis B: Environmental, 154-155C (2014), pp. 246-251. <http://www.sciencedirect.com/science/article/pii/S0926337314001192>
20. Hydrothermal Synthesis of Nanocrystalline Zeolite Using Clear Solution, Proceeding SISEEST, Unsri 2014