STAFF HANDBOOK

Name	**Prof. Dr. Suyono, M.Pd.**			
Position	**Professor on Chemistry Education**			
Academic Career	**Degree**	**University**		**Year**
	Bachelor Degree (Chemistry Education)	*IKIP Surabaya – Indonesia*		*1979-1984*
	Master Degree (Chemistry Education)	*IKIP Malang – Indonesia*		*1985-1990*
	Doctoral Degree (Mathematics and Natural Sciences – Chemistry)	*Airlangga University – Indonesia*		*1993-2002*
Employment	**Position**	**Employer**		**Period**
	Professor	*Universitas Negeri Surabaya – Indonesia*		
Research and Development Project Over the Last 5 Years	**Title**	**Funder**	**Year**	**Amount of Financing (million)**
	Consistency, Relevance, and Practicality Reference Book Formulation of Thinking Framework	*Penelitian Skema Dasar*	*2023*	*30*
	Development of e-learning-based PBL-STEM learning tools and their effects on science	*Penelitian Kebijakan FMIPA*	*2023*	*20*
	Development of Conceptual Change Remediation Worksheets to Reduce Students' and Prospective Teachers' Misconceptions on Chemistry)	*Penelitian Kebijakan FMIPA*	*2023*	*20*

	process skills and critical thinking skills of high school students)			
	Identification, Use, and Expansion of Analogical Anchoring Conceptions and Self- Regulation to Prevent Student, Teacher Candidate, and Teacher Misconceptions on Chemical Equilibrium	*PKM Kebijakan FMIPA*	*2023*	*10*
	Molecular Analysis of the FoxP2 Gene in Turtledove (Geopelia striata) as a Breeding Basis for Obtaining Turtledoves with Champion Chirping Sounds)	*DRTPM*	*2023*	*121, 4*
	CCPS (Connected Creative Problem Solving) Model of Thinking Skills Training for Chemistry Teacher Candidate Students	*DRTPM*	*2023*	*131, 4*
	Dissemination of Structured Chemistry Physics Lecture Materials that Train Argumentation Skills)	*Penelitian Kebijakan FMIPA*	*2023*	*40*
	Evaluation of the Thinking Framework of the Thesis and Dissertation of the Unesa Postgraduate Science Education Study Program for the Last Five Years	*Penelitian Kompetitif Dasar Pascasarjana*	*2022*	*45*
	Development of Chemistry Lecture Tools to Reduce Logical Fallacy in Arguing	*Penelitian Kompetitif Dasar FMIPA*	*2022*	*20*
	Development of Chemistry Lecture Tools to Train Argumentation Skills as Bonds for Collaboration between Unesa and UPSI Malaysia	*Penelitian PNBP(Penelitian Kolaboratif Internasional (ASIIN))*	*2021*	*75*

	(Analysis of Reasoning Errors of Chemistry Students at FMIPA Unesa in Arguing)	*Penelitian PNBP(Penelitian LPPM Skema Penelitian Dasar)*	*2021*	*30*
	The Argumentation Ability of Chemistry Students in Assessing Viral Phenomena of Social Networking	*Program Penelitian Kompetitif LPPM*	*2020*	*40*
	(Development of STEM-Based Chemistry Textbooks to Train Students' Problem Solving Skills)	*DRPM*	*2020*	*37,65*
	(Development of Digital Learning Resources as a Means to Motivate Physical Chemistry Lectures During the Study From Home (SFH) Period)	*Program Penelitian Kompetitif Kebijakan Fakultas FMIPA*	*2020*	*12*
	Development of Structured Lecture Material in Physical Chemistry 3 Course to facilitate Science Process Skill, Argumentation, and Problem Solving)	*Penelitian Guru Besar, Dana PNBP Melalui LPPM*	*2019*	*40*
	Development of Website-Assisted Electronic Modul to Reduce Chemistry Misconceptions of Post-Graduate Students in Science Education Study Program	*Penelitian Kebijakan Pascasarjana Unesa*	*2018*	*50*
	Title	**Funder**	**Year**	**Amount of Financing (million)**
	Pelatihan Pemetaan Konsepsi Pesrta Didik pada Materi Kimia di Kabupaten Gresik (Student Conception Mapping Training on Chemical Materials in Gresik Regency)	*PKM Kebijakan FMIPA*	*2023*	*10*

Community Service Over The Last 5 Years	*Pelatihan Penyusunan Bahan Ajar Kimia Berbasis Keterampilan Argumentasi Sebagai Penguatan Keterampilan Abad 21 Bagi Guru Kimia di Kota Kinabalu Malaysia (Training on Preparation of Chemistry Teaching Materials Based on Argumentation Skills to Strengthen 21st Century Skills for Chemistry Teachers in Kota Kinabalu, Malaysia)*	*PKM Kebijakan FMIPA*	*2023*	*10*
	Pelatihan Pembuatan E-LKPD Berorientasi STEM dengan Model PBL bagi Guru MGMP Kimia Kabupaten Gresik	*PKM Kebijakan FMIPA*	*2023*	*10*
	Pelatihan Pembuatan Bahan Ajar Berbasis Project Based Learning (PjBL) sebagai Upaya Menghadapi Kurikulum Merdeka di Kabupaten Nganjuk (Training on Making Teaching Materials Based on Project Based Learning (PjBL) as an Effort to Face the Independent Curriculum in Nganjuk Regency)	*PKM Kebijakan FMIPA*	*2022*	*10*
	Pelatihan Penyusunan Tes Diagnostik Model Sorogan Bandongan bagi Guru Kimia di Kodya Surabaya (Training on the Preparation of the Sorogan Bandongan Model Diagnostic Test for Chemistry Teachers in Surabaya Municipality)	*PNBP Kebijakan FMIPA*	*2021*	*10*
	Menjaga Imunitas Tubuh Warga Unesa dalam Mencegah Covid-19 dengan Memberikan Tontonan Video Lucu (Keep immunity body of unesa in preventing covid-19 by giving a spectacle of watching funny videos)	*Skema PKM Kompetitif Pasca Sarjana*	*2020*	*20*
	Pelatihan Penyusunan Soal Kimia Berorientasi HOTS sebagai Alternatif Pemilihan Jenis Tes dalam Penyelenggara Tes Online di Era Pandemi Covid-19	*PNBP FMIPA*	*2020*	*7*
	Pelatihan Penyusunan Rancangan Pembelajaran Kimia Berorientaso HOTS bagi Guru-guru Anggota MGMP Kimia Kabupaten Sumenep (Anggota Tim) (Training a draft learning chemical berorientaso hots for teachers members mgmp chemical district sumenep team members).	*BOPTN FMIPA-Unesa*	*2019*	*7,5*

	Pengabdian kepada Masyarakat Guru MGMP Kimia Kediri melalui Pelatihan Model Pembelajaran Berbasis Keterampilan Proses (Devotion To The Chemical Through Training Teachers MGMP Kediri Learning Model Based Skill Process)	*BOPTN FMIPA-Unesa*	*2018*	*7,5*
Industry Collaborations Over the Last 5 Years	**Title**	**Partner**		**Year**
Patents and Property Right	**Title**	**Patent ID**		**Year**
	CCM-EWTSQ (Conceptual Change Models-Enriched With Three Scientific Question) Menggunakan Modul Conceptual Change (CCMo) Dan Worksheet Berbasis Tiga Pertanyaan Keilmuwan Pada Konsep Orde Reaksi	*Copyright Registration Number: 000397747*		*2022*
	CCM-EWTSQ (Conceptual Change Models-Enriched With Three Scientific Question) Menggunakan Modul Conceptual Change (CCMo) Dan Worksheet Berbasis Tiga Pertanyaan Keilmuwan Pada Konsep Asam Arrhenius	*Copyright Registration Number: 000397744*		*2022*
	CCM-EWTSQ (Conceptual Change Models-Enriched With Three Scientific Question) Menggunakan Modul Conceptual Change (CCMo) Dan Worksheet Berbasis Tiga Pertanyaan Keilmuwan Pada Konsep Indikator Asam Basa	*Copyright Registration Number: 000397745*		*2022*
	CCM-EWTSQ (Conceptual Change Models-Enriched With Three Scientific Question) Menggunakan Modul Conceptual Change (CCMo) Dan Worksheet Berbasis Tiga Pertanyaan Keilmuwan Pada Konsep Ikatan Ionik	*Copyright Registration Number: 000397746*		*2022*
	Modul Conceptual Change (MCC) Berbasis Model Mental Pada Konsep Konfigurasi Elektron (Module conceptual change (MCC) mental model based on the configuration of electrons)	*Copyright Registration Number: 000150431*		*2019*
	Modul Conceptual Change (MCC) Berbasis Model Mental Pada Konsep Orbital (The conceptual change (MCC) mental model based on the orbital)	*Copyright Registration Number: 000150433*		*2019*

	Modul Conceptual Change (MCC) Berbasis Model Mental Pada Konsep Tingkat Energi Elektron (Module conceptual change (MCC) mental model based on the concept of electrons levels of energy)	*Copyright Registration Number: 000173693*	*2019*
	Instrumen untuk Mengukur Kemandirian Belajar Mahasiswa (Instrument for Measuring Student Learning Independence)	*Copyright Registration Number: 088001*	*2017*
	Belajar dan Pembelajarannya	*ISBN: 978-979-692-046-4*	*2017*
	Implementasi Belajar dan Pembelajarannya	*ISBN : 978-979-692-625-1*	*2017*
	Metode Adsorpsi Kation Logam Emas/Au(III) dari Limbah Cair dengan Biomassa Saccharomyces cerevisiae dan Cara Desorpsinya (Adsorption Method of Gold/Au(III) Metal Cation from Liquid Waste with Saccharomyces cerevisiae Biomass and Its Desorption Method)	*Patent IDP 000042867*	*2009*
Important Publications Over the Last 5 Years	1. *Dewi, A. I. K. ., Suyono, S., & Erman, E. (2023). Effectiveness of Socioscientific Issues (SSI) Based Learning to Improve Argumentation Skills. Jurnal Penelitian Pendidikan IPA, 9(1), 279–283. https://doi.org/10.29303/jppipa.v9i1.2866* 2. *R. E. Permatasari, Suyono, & L.Yuanita. 2022. Possible Failure of Applying Conceptual Change Learning Strategies for Chemical Concepts: A Meta-Analysis. Res Militaris. ISSN 2265-6294.* 3. *Rusmini, Suyono, & R. Agustini. 2021. Profile of Argumentation Ability of Undergraduate Students In Chemistry Education Based On Non-Routine Problems. E3S Web Conf. Volume 328. International Conference on Science and Technology (ICST 2021).* 4. *Rusmini, Suyono, & R. Agustini. 2021. Development of Critical Thinking Skills and Argumentation Skills Assessment Instruments Towards 21st-Century Skills Based on Non-Routine Problems. MISEIC 2021. Proceedings of the International Joint Conference on Science and Engineering 2021.* 5. *Dian, N., Suyono, L. Yuanita. 2021. The Validity of the Internalized Argumentation Skills Test for Chemistry Students. E3S Web Conf. Volume 328. International Conference on Science and Technology (ICST 2021).* 6. *B. Yonata, Suyono, & U. Azizah. 2021. Four-Tier Diagnostic Test on Chemical Kinetics Concepts for Undergraduate Students. MISEIC 2021. Proceedings of the International Joint Conference on Science and Engineering 2021.* 7. *Suyono, H Nasrudin, B Yonata, W B Sabtiawan. 2021. The Claims Statements from Viral Videos for Instrument Development to Assess Argumentation Thinking Skills. Journal of Physics: Conference Series | vol: 1899 | issue : 1 | 2021-05-28 | Conference Proceeding.* 8. *Suyono. 2020. Miskonsepsi Kimia, Sebuah Misteri (Chemical Misconception, A Mystery). Jurnal Pembelajaran Kimia, Vo. 5, No. 1, 2020 doi : http://dx.doi.org/10.17977/um026v5i12020p001* 9. *R. Hidayatulloh, Suyono, and U.Azizah. 2020. Analisis Keterampilan Pemecahan Masalah Siswa Sma Pada Topik Laju Reaksi.JPPS (Jurnal Penelitian Pendidikan Sains)Vol. 10, No.1 hall. 899-1909* 10. *K. Sa'adah and Suyono. 2020. Learning Of Reaction Rates With Nested Curricular Arrangement Which Is Combined With Connected Curricular Arrangement To Improve Critical Thinking Skills Of The Students. JCER (Journal Chemistry Education Research)Vol. 4, No.1, hal.1-7* 11. *Syahmani, Suyono, Z.A.I. Supardi. 2020. Effectiveness of i-SMART learning model using chemistry problems solving in senior high school to improve metacognitive skills and students' conceptual understanding. Pedagogika, 2020, t. 138, nr. 2, p. 37-60*	

	12. *Rohmat Hidayatulloh, Suyono, Utiya Azizah. 2020. Development of STEM-Based Chemistry Textbooks to Improve Students' Problem Solving Skills. Journal of Research and Education Studies. Vol.4, No. 3 (2020). https://journal-center.litpam.com/index.php/e-Saintika/article/view/306* 13. *Suyono, et. al. 2020. Chemical Education Student Science Process Skills, in Specific and in General Content. Jurnal ABDI, Vol.6, no.1, hal.18-23* 14. *Suyono. 2019. The Map of Post-5th Semester Pre-Service Chemistry Teachers Conceptions at Universitas Negeri Surabaya. IOP Conf. Series: Journal of Physics: Conf. Series 1317 (2019) 012148 doi:10.1088/1742-6596/1317/1/012148.* 15. *Suyono, H. Nasrudin and B. Yonata. 2019. Consistency and Relevance of Structured Lecture Materials in Physical Chemistry 3 Subjects. Proceedings of the International Conference on Research and Academic Community Services (ICRACOS 2019), Atlantis Press.* 16. *Suyono, H. Nasrudin and B. Yonata. 2019. Chemical Education Student Science Process Skills, in Specific and in General Content. Proceedings of the National Seminar on Chemistry 2019 (SNK-19) Atlantis Press.* 17. *N. K. Pratiwi, Suyono and L. Yuanita. 2019. The students' conception track of low-perception-students through the conceptual change (MCC) module based on mental models on electron configuration concept. Proceedings of the National Seminar on Chemistry 2019 (SNK-19) Atlantis Press.* 18. *Sukarmin, Suyono, and Wasis. 2019. Remediation Of Students' Misconception Based On Their Learning Style Through Guided Conceptual Change Strategies In The Concept Of Electrochemistry. Proceedings of the National Seminar on Chemistry 2019 (SNK-19) Atlantis Press ISBN: 978-94-6252-877-2 doi: https://doi.org/10.2991/snk-19.2019.45.* 19. *Lutfi, A., Suyono, Erman, and Hidayah, R. 2019. Edutainment With Computer Game As A Chemistry Learning Media. Jurnal Penelitian Pendidikan Sains (JPPS) Vol 8, No.2, 1684-1689.* 20. *Proceedings of the National Seminar on Chemistry 2019 (SNK-19) Atlantis Press ISSN: 2590-3195 doi:https://doi.org/10.2991/snk-19.2019.31* 21. *Suyono, and Wahyu Budi Sabtiawan. 2019. Reducing the Misconception Burdens of Students with Balance Visual-Verbal Learning Style through the Conceptual Change Strategy Assisted by Student Worksheet. Journal of Science Education No. 2, Vol. 20, 2019.* 22. *A. Majid and Suyono. 2018. Misconception Analysis Based on Students Mental Model in Atom Structure Materials. Advances in Engineering Research Vol 171, Atlantis Press ISSN: 2352-5401, ISBN: 978-94-6252-591-7.* 23. *Windiastuti, E., Suyono, and Kuntjoro, S. 2018. Development Of The Guided Inquiry Student Worksheet For Biology Grade 11th Senior High School. Jurnal penelitian Pendidikan Sains (JPPS) Vol 7, No.2, 1513-1518* 24. *Sukarmin and Suyono. 2018. The Use of Interactive Multimedia in Balancing Redox Reactions for Facilitating Learning Style Differences. Advances in Engineering Research Vol. 171, Atlantis Press ISSN: 2352-5401, ISBN: 978-94-6252-591-7.* 25. *Suyono et.al. 2018. Development Of Chemistry Student Book Integrated With Science Literacy Skill On The Material Reaction Rate. Unesa Journal of Chemical Education, Vol 7 No 3 pp: 320-325, 2018* 26. *Suyono. 2018. Tracing Individual Conception in Conceptual Change Stages Using Module Assistance. International Conference on Science and Technology (ICST), Bali.* 27. *R N Astuti, Suyono, and M Nur. 2018. The Argumentation Skills of Junior High School Students on Physical Changes and Chemical Changes. Journal of Physics:* 28. *Conference Series DOI: https://doi.org/10.1088/1742-6596/1108/1/012127*

	Organization	**Role**	**Period**

Activities in Specialist Bodies Over the Last 5 Years	*Perkumpulan Pendidik IPA Indonesia (PPII)*	*Member*	*2010-Now*