



Parindra Kusriantoko, S.T., M.T., M.Sc.

Personal Information

Birthplace / Date : Lamongan / April 22, 1992
Sex : Male
Religion : Moslem
Nationality : Indonesia
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Curriculum Vitae

1. **PhD Candidate:** Norwegian University of Science and Technology at Department of Materials Science and Engineering, the research is about Modelling of kinetics and CFD Modelling of Fluidized Bed Reactor as part of Zero Emission Aluminium (ZEAL) Project [Starting date: September 2023 – Present]
2. **Lead Engineer, Reduction and Casting Matters:** Serving as the Lead Engineer for Reduction and Casting Matters at PT Indonesia Asahan Aluminium (Persero), equivalent to BOD-3, my role encompasses Technology Development, Research & Development (R&D), Technology & Materials Selection, Process Improvement, and Technical Project Management [Starting date: June 2023 – September 2023]
3. **Process, Modelling and Project Engineer:** Work at Engineering Department with specialization of Engineering Process (Research and Development) in Pre-Baked Anode Hall–Héroult Aluminum Smelting Process, specialized in Reduction and Casting area. Work at Engineering Department with specialization of Engineering Process (Research and Development) in Pre-Baked Anode Hall–Héroult Aluminum Smelting Process, specialized in Reduction and Casting area. Project engineer on Upgrading capacity and product diversification. [Starting date: May 2016 – May 2023]
4. **Advisor at Askpert.id on the field of Aluminium Industry** [Starting date: August 2022 – September 2023]
5. **Registered as Industrial Lecturer (Practical Lecturer) at Institut Teknologi Kalimantan, Balikpapan** [Starting date: November 2021 – present]
6. **Registered as Lecturer at Akademi Industri Pertambangan Bukit Asam (AKIPBA), Tanjung Enim Sumatera Selatan** [Starting date: August 2018 – present]

7. **Master degree:** Currently graduated from Material Science and Engineering Department National Taiwan University of Science and Technology (NTUST) [Graduation date: June 2015] **GPA: 3.67/4**
8. **Master degree:** Currently graduated from Materials and Metallurgical Engineering Department Sepuluh Nopember Institut of Technology Surabaya (ITS) [Graduation date : September 2015] **GPA: 3.78/4**
9. **Bachelor degree:** Currently graduated from Materials and Metallurgical Engineering Department Institut Teknologi Sepuluh Nopember Surabaya [Graduation date: March 2014] **GPA: 3.82/4**

Fields:

Modelling and Simulation, Project Management, Process engineering aluminum smelting, modelling of aluminium electrolysis cell (Hall Heroult), ANSYS Thermo-Electrical Modelling, APDL, Magneto Hydro-Dynamics, Metallurgical Engineering of Aluminium Casting, Vertical Direct Chill Casting, Brownfield Aluminium Smelter Project, Material Science, Ceramics, Metals, Glasses, Biomaterial, Nanomaterial, Spray Pyrolysis method, Sol-gel method, sintering process, Grain boundary analysis, In-vitro simulated body fluid test, SEM, XRD, TEM, TGA, DSC, EDX, FTIR, ICP, Raman Spectroscopy, Mechanical Properties of materials

Achievements

1. **2nd Place on Conceptual Category on BIGMIND Innovation Award 2022 (National) (2022)**
2. **Selected INALUM engineer to follow the 3 months training program on Thermo-Electric and MHD modelling of aluminium reduction cell at Emirates Global Aluminium, UAE (2019)**
3. **Received “Double degree program from National Taiwan University of Science and Technology (NTUST)” (NTUST Scholarship 2014-2015)**
4. **The best graduated student for B.E (Bachelor of Engineering) in Material and Metallurgical Engineering Department with *cum laude* mark (2014)**
5. **Received “Fast-track Full Scholarship program from ITS” (*Fast-track* is acceleration program from bachelor degree to master degree) (2013-2015)**
6. **Received “BIDIK MISI” Full Scholarship from DIKTI (Direktorat Jenderal Pendidikan Tinggi) under the ministry of education and culture Indonesia (2010-2014)**
7. **Finalist in PIMNAS (Pekan Ilmiah Mahasiswa Nasional/National Student Science Week) 25 UMY (held by Universitas Muhammadiyah Yogyakarta cooperate with DIKTI: 2012)**
8. **Big 5 Finalist of province selection in OSN-Pertamina (held by Pertamina cooperate with Universitas Indonesia: 2012)**
9. **The most progressive staff Department of Research and Technology Himpunan Mahasiswa Teknik Material dan Metalurgi ITS (Materials and Metallurgy Student Society ITS) (2011-2012)**
10. **Big 9 Finalist of province selection in OSN-Pertamina (held by Pertamina and Universitas Indonesia: 2011)**

Projects

1. **Castable Metallic Nanocomposite Project with Materials Science and Engineering Dept. of MIT. INALUM's representative engineer. Mining and Metals Industrial Institute and PT Indonesia Asahan Aluminium (Paser). 2019 – 2021.**

Brief: Collaboration project between Massachusetts Institute of Technology (MIT), Mining Industry Indonesia (MIND ID) and INALUM to find out the new generation of castable aluminium nanocomposite

Project cost: 250+ kUSD

Roles and Responsibilities:

- 1) Involved in monthly progress meeting with MIT members.
- 2) Involved in controlling the research progress towards the goal of project in the perspective of owner.

2. Pot Reduction Performance Optimization with Emirates Global Aluminium to reach 215 kA. PT Indonesia Asahan Aluminium (Persero). Modelling Engineer, acting as the key point of contact between INALUM and EGA. 2019 – 2023.

Brief: Reduction Cells performance optimization to minimum amperage of 215 kA in partnership with Emirates Global Aluminium (EGA). Pilot project contract signed on Dec. 21, 2020 witnessed by INALUM BOD, EGA CEO, ambassador Indonesia for UAE and ambassador UAE for Indonesia.

Project Cost: 5+ MUSD

Roles and Responsibilities:

- 1) Involved in developing Term of Reference, Owner Estimate
- 2) Involved in developing modelling simulation model
- 3) Involved as main PIC from INALUM to communicate with EGA's PIC
- 4) Involved in majors engineering stages and process

3. Upgrading / Retrofit of 1 Potline of Reduction Cell to Newest Technology from 193 kA to 235 kA (SAMI Technology). PT Indonesia Asahan Aluminium (Persero). Direct assistance to the project manager and Group Leader of Project Preparation Group also In charge as the point of contact between INALUM, the EPC contractor and Project Management Consultant (HATCH). 2019 - 2023.

Brief: Retrofit project in order to upgrading Potline No. 2 to 235 kA using SAMI Technology as part of the 300 ktpy program at PT INALUM (Persero).

Project Cost: 99+ MUSD

Roles and Responsibilities:

- 1) Involved in developing Term of Reference, Owner Estimate
- 2) Involved in developing Bid Evaluation Sheet (Using Multi-Criteria Decision Making, AHP Method)
- 3) Involved in Bid Evaluation process
- 4) Involved in developing modelling verification and evaluation against Bidders' proposed design
- 5) Involved in Contact Discussion Agreement and Negotiation
- 6) Discussion with PMC (HATCH).

7) Monitoring of project execution

4. Aluminium Product Diversification Project. PT Indonesia Asahan Aluminium (Persero). Project Contributor. April 2016 – December 2017

Brief: To establish Aluminium Billet and Foundry Alloy Plant in INALUM to produce Primary Aluminium Billet and Foundry Alloy with more value-added price compare to Primary Aluminium Ingot.

Project Cost: 25+ MUSD

Roles and Responsibilities:

- 1) Assist project secretary to control project progress, set up meeting, and documenting any activities.
- 2) Assist technical matters including determine the foundry alloy and billet specification and quality management plan
- 3) Responsible to control the project progress, meeting activities and documentation, set up the quality planning of products

5. Pot Modelling Project. PT Indonesia Asahan Aluminium (Persero). Supervisor. September 2016 – November 2016

Brief: Inialization project of INALUM towards Pot modelling practices

Project Cost: 200+ kUSD

Roles and Responsibilities:

- 1) To design and model the pot cell and get assisted by the experts
- 2) To gather INALUM resources and any parametrical data to build the simulation in a team of technical modelling.

6. Bioactive Materials Research Project. NGB Lab National Taiwan University of Science and Technology (NTUST). Project Leader of Bulk Analysis of Mesoporous Bioactive Glass (MBG). June 2014 – September 2015.

Publications (Articles/Books/Papers/Thesis/Dissertation)

1. **INALUM Smart Smelter: Digital Twin Transformation Development**, BIGMIND Innovation Award 2022, MIND ID, Jakarta, Indonesia
2. **INALUM Smart Smelter: Digital Twin Transformation Development**, Technology Innovation Seminar 22nd, INALUM, Kuala Tanjung, Indonesia
3. **AlF3 Preliminary Study of AlF3 Plant by Integration of Domestic Alumina Refinery (PT Indonesia Chemical Alumina) And Fertilizer Company (PT Pupuk Iskandar Muda)**, Technology Innovation Seminar 21st, INALUM, Kuala Tanjung, Indonesia
4. **The Effect of Fluxing Material and Method on the Inclusion Content of Strontium Modified A356.2 at PT Inalum (Persero)**, TalentaCEST (International Conference), October 2019, USU, North Sumatera.

5. **Study of Analysis Furnace Tending Vehicle in Casting Plant to Optimize the Skimming and Furnace Cleaning for Improved Product Quality and Safety**, Inalum Technical Study, September 2019, North Sumatera, Indonesia.
6. **Study of Changing Nitrogen to Argon Degasser in STAS Degasser to Optimize Inclusion While Keeping Good Hydrogen Content**, Inalum Technical Study, July 2019, North Sumatera, Indonesia.
7. **Study of New Pot Design, Improvement from D5-1 to D6-0**, Inalum Technical Study, February 2019, North Sumatera, Indonesia
8. **Application Test of Multisource Program of Silicon Metal at Casting Plant**, Inalum Technical Proposal and Report, February 2019, North Sumatera, Indonesia
9. **Trial of New Product in Compliance with Buyer Specification**, Inalum Technical Proposal and Report, January 2019, North Sumatera, Indonesia
10. **Participating in Drafting of Paper “The Optimization of Soaking Time to Reduce Fuel Consumption While Keeping Good Baked Anode Quality”**, TMS Proceeding 2019, March 2019, USA
11. **Standar Nasional Indonesia (SNI) of Aluminium Billet and Foundry Alloy**, Draft RSNI Aluminium Billet and Alloy, November 2018, Indonesia
12. **Material Safety Data Sheet of Aluminium Foundry Alloy A356.2 and A356.2 Sr Modified**, MSDS INALUM, 2018, Indonesia
13. **Material Safety Data Sheet of Aluminium Billet 6061, 6063, 6005**, MSDS INALUM, 2017 – 2018, Indonesia
14. **Study of New Product Aluminium Billet 6082 to be Produced at INALUM Billet Plant**, Inalum Technical Study, September 2018, North Sumatera, Indonesia
15. **Strategy to Control Quality of Billet and Alloy by Using K-Mold and Reduced Pressure Test (RPT) as Tools for Inclusion Analysis and Hydrogen Content Measurement**, Inalum Technical Study of PT Inalum (Persero), March 2018, North Sumatera, Indonesia.
16. **Application Test of Alumina ex. Well Harvest Winning Alumina Refinery (WHW)**, Parindra Kusriantoko, Juswar Hidayat, Inalum Technical Proposal and Report of PT Inalum (Persero), March 2018, North Sumatera, Indonesia.
17. **Participating in Drafting of Paper “Maximizing Previous Pot Design to Have Higher Capacity”**, TMS Proceeding 2018, March 2019, USA
18. **Study of Theoretical and Experimental Relationship between Hydrogen Content and Density of Aluminium Foundry A356.2**, Parindra Kusriantoko, Inalum Technical Study of PT Inalum (Persero), January 2018, North Sumatera, Indonesia.
19. **Analysis of Potential Establishment of 1,000 tpy Activated Carbon Plant by Using Carbon Dust Waste of Anode Slot Cutting Machine as Raw Material**, Parindra Kusriantoko, Technical Improvement Seminar of PT Inalum (Persero), October 2017, North Sumatera, Indonesia (Oral Presentation).
20. **INALUM Business Improvement Scheme Consists of Improvement Strategy of INALUM**. 2017. Indonesia

21. **Decision Tree Consists of Technical and Economical Aspect of Several INALUM Projects to Increase Production Capacity to be Presented to INALUM BOD.** 2017. Indonesia
22. **Trial of Pyromag Si ex. Pyrotek to Reduce Sodium Content on 6063 Aluminium,** Inalum Technical Report of PT Inalum (Persero), June 2017, North Sumatera, Indonesia.
23. **Study of Metallography Analysis for Aluminium Billet,** Parindra Kusriantoko, Inalum Technical Study of PT Inalum (Persero), March 2017, North Sumatera, Indonesia.
24. **Homogenization Designation for Aluminium Billet 6063 and 6061,** Parindra Kusriantoko, Inalum Technical Study of PT Inalum (Persero), March 2017, North Sumatera, Indonesia.
25. **General Flow Process of Aluminium Billet Production and Quality Control,** Parindra Kusriantoko, Inalum Technical Study of PT Inalum (Persero), March 2017, North Sumatera, Indonesia.
26. **Participating in Drafting of Paper “Anode Quality Improvement at Inalum Smelter”,** TMS Proceeding 2017, March 2017, USA
27. **Analysis of Copper Inserts on Ultra Low Resistivity Carbon Steel to be Used as Cathode Bar to Optimize the Reduction Pot Performance,** Parindra Kusriantoko, Paper for Apprentice Program to be Presented to INALUM’s Directors, January 2017, North Sumatera, Indonesia (Oral Presentation).
28. **Introduction of Pot Reduction Modelling Simulation through ANSYS,** Parindra Kusriantoko, Monthly Technical Meeting of PT Inalum (Persero), December 2016, North Sumatera, Indonesia (Oral Presentation).
29. **Addition of LiF and MgF₂ in Reduction Cell to Enhance the Current Efficiency at Inalum Smelter,** *Parindra Kusriantoko, Monthly Technical Meeting of PT Inalum (Persero), November 2016, North Sumatera, Indonesia (Oral Presentation).
30. **Calcined Petroleum Coke (CPC) Based Activated Carbon from Dust Waste of Anode Slot Cutting Machine in PT Inalum (Persero),** *Parindra Kusriantoko, Eko Sumardiansyah, Monthly Technical Meeting of PT Inalum (Persero) August 2016, North Sumatera, Indonesia (Oral Presentation).
31. **Degradation behavior and bioactivity of various compositional mesoporous bioactive glasses (多種成分之介孔生物活性玻璃降解行為及生物活性之研究),** *Parindra Kusriantoko, Master Degree Thesis in National Taiwan University of Science and Technology (NTUST), 2015, Taipei, Taiwan (Thesis)
32. **Long-Term *In-Vitro* Bioactivity and Degradation Behavior of Bulk Mesoporous Bioactive Glass Produced by Spray Pyrolysis,** *Parindra Kusriantoko, Shao-Ju Shih, Widyastuti, Annual Meeting of the Chinese Ceramic Society (2015), Taipei, Taiwan (Paper submitted and oral presented).
33. **Analysis of YSZ-Al₂O₃/YSZ Flame Sprayed Thermal Barrier Coating to Thermal Resistance,** Widyastuti, *Parindra Kusriantoko, Lilis Mariani, Hosta A. and Sulistijono, **Advanced Materials Research Vol 1112 (2015) pp 338-344** (Paper published: doi:10.4028/www.scientific.net/AMR.1112.338)
34. **Redesign ITS Central Library through Smart Building,** *Muhammad Junaidi, Parindra Kusriantoko, Hosta Ardhyanta, Ary Bachtiar and Dimas Anton, **Applied Mechanics and Materials Vol 493 (2014) pp 117-122** (Paper published: doi:10.4028/www.scientific.net/AMM.493.117)
35. **The Effects of Al₂O₃/YSZ Composite Compositions and Feed Rate Variations on Thermal Resistance and Adhesion Strength of YSZ- Al₂O₃/Ysz Double Layer TBC for Rocket Nozzle Application,** *Parindra Kusriantoko, Undergraduate Thesis in Institut Teknologi Sepuluh Nopember Surabaya (ITS), 2014, Surabaya (Thesis)

36. **Design and Construction of S-Coc (Self Cooling Cup) : Cup with Self Cooling System Using Adiabatic Expansion Method of CO₂**, *Parindra Kusriantoko, Article and Student Creativity Project for Technology, 2013, granted by Ministry of Education (Article).

Certification

1. **PMP® Certified.** Project Management Institute. 30 July 2023 – 2026. https://www.credly.com/badges/44893c10-3271-4762-ab9f-0488eaff828a/linked_in_profile
2. **Certificate of Engineer Registration as Professional Engineer.** Persatuan Insinyur Indonesia (Indonesian Engineers Association). 0.016.23.1.1.00023050. January 2023.
3. **IELTS Academic band 6.5 (Competent User).** IDP Education. 21ID006888KUSP017A. January 2022.
4. **EF SET English Certificate 74/100 (C2 Proficient).** EF Standard English Test. Issued on November 2019. <http://www.efset.org/cert/vZd3FU>
5. **3 months training program on Thermo-Electric and MHD modelling of aluminium reduction cell.** Emirates Global Aluminium Technology Development & Transfer. Issued on June 2019
6. **Lean Six Sigma Green Belt.** Certification authority by Freemind Management Consulting. No. 147/TR/FMC/X/2017. Issued on October 2017
7. **Beginner ANSYS: Introduction to ANSYS Fluent and MHD Module.** CA-IT Consultants (Asia) Pte Ltd. Issued on January 2017.

Seminar, Training, Other Activities

1. **First Time Manager Training and Workshop.** INALUM with RUMI. August 2023.
2. **Safety Leadership.** INALUM. Juni 2023.
3. **Workshop BIGMIND Innovation Award 2022 (Finalist) Business Presentation Skill.** MIND ID. November 2022
4. **PMP® Exam Preparation Based on PMBOK® Guide (A Guide to the Project Management Body of Knowledge) 6th and 7th Edition.** 35 training hours held by PMIT Consulting (Medan: August 2022)
5. **Workshop BIGMIND Innovation Award 2022: Innovation Talk, Technology-based Innovation, Cost & Benefit Analysis and Pitch & Storytelling.** MIND ID. August 2022.
6. **Process Improvement using PDCA & QC 7 Tools.** INALUM. July 2021.
7. **AlCourse – Aluminium Electrolysis Course by Marc Dupuis.** Vostad partnered with Genisim and Peter Entner Consulting. June 2021.
8. **Knowledge Sharing and Training on Modelling Validation and Measurement by Emirates Global Aluminium (EGA).** EGA Engineers. May 2021
9. **edX Verified Certificate for Project Management of Engineering Projects: Preparing for Success.** EdX. Issued on November 2020. <https://courses.edx.org/certificates/f36eb2cee08b4346a2dc187fed98bed2>
10. **Team Effectiveness.** held by PT Inalum (Persero) (Batubara: 2020)
11. **ANSYS Mechanical and Mechanical Heat Transfer.** CAD-IT Consultants (ASIA) Pte Ltd. August 2020.
12. **Six Sigma Yellow Belt,** held by ECI Bisnis Manajemen with PT Inalum (Persero). (Batubara: 2020)
13. **Jury on Industrial Problem Solving: Paper Competition,** held by USU (Medan: 2020). Selecting the best papers from participants from 17 universities of Indonesia.

14. **Risk Management Training by CRMS Indonesia**, held by PT Inalum (Persero) (Batubara: 2019)
15. **Talenta Conference on Engineering, Science and Technology**, held by USU (Medan: 2019) oral presentation of "The Effect of Fluxing Material and Method on the Inclusion Content of Strontium Modified A356.2 at PT Inalum (Persero)"
16. **3 months training program on Thermo-Electric and MHD modelling of aluminium reduction cell at Emirates Global Aluminium**, held by EGA partnered with INALUM, UAE (Dubai, 2019)
17. **Training of Lecturer for Vocational Education in supporting the Akademi Komunitas Industri Pertambangan Bukit Asam (AKIPBA)**, held by Politeknik Manufaktur (Bandung: 2018) completed with micro teaching.
18. **Training of Aluminium Billet and Foundry Alloy**, held by PT Inalum (Persero) partnered with Dr. John Grandfield from Grandfield Technology Australia (Batubara: 2018)
19. **Sharing Knowledge: Development of Research & Development Center to Support Development Program of PT INALUM (Persero)**, held by PT Inalum (Persero) partnered with Dr. Mark Dorreen from Light Metals Research Centre (LMRC), The University of Auckland New Zealand (Batubara: 2018)
20. **Training of Aluminium Slab/Sheet, Wire/Rod and Aluminium Scrap**, held by Center of Material Processing and Failure Analysis (CMPFA), Metallurgical and Materials Engineering, University of Indonesia (UI) (Batubara: 2018)
21. **Technical Lecture of Alumina Process Technology**, held by PT Inalum (Persero) partnered with Dr Iwan Hiralal from Hiracon Consultancy (Batubara, 2018)
22. **PMP® Exam Preparation Based on PMBOK® Guide (A Guide to the Project Management Body of Knowledge) 5th Edition**, 35 training hours held by PT Prima Mandiri Internasional (Batubara, 2017)
23. **3 Days Workshop of Six Sigma for Professionals and Green Belt Program Certification**, held by Indo Human Resource partnered with PT Freemind Management Consulting (Jakarta: 2017)
24. **Kriteria Penilaian Kinerja Unggul of Inalum 2017**, held by Ministry of BUMN (Kuala Tanjung: 2017)
25. **ANSYS Training "Introduction to ANSYS Fluent and MHD Module"** which was held by CAD-IT Consultants (Asia) Pte Ltd (Batubara: 2016)
26. **Quality Control Training (QC/QA) and Aluminum Testing (Methods & Practice) on Billet & Alloy Ingot** which was held by Center of Material Processing and Failure Analysis (CMPFA), Metallurgical and Materials Engineering, University of Indonesia (UI) (Depok: 2016)
27. **Taiwan Ceramic Society Meeting 2015** which was held by National Taipei University of Technology and Chinese Culture University (Taipei : 2015)
28. **Laboratory Safety Training National Taiwan University of Science and Technology** which was held by NTUST (Taipei : 2014)
29. **MRS-Id (Material Research Society Indonesia) Meeting** which was held by MRS-Id (Bali : 2014) oral presentation of "Analysis of YSZ-Al₂O₃/YSZ Flame Sprayed Thermal Barrier Coating to Thermal Resistance"
30. **International Conference on Mechanical Engineering 2013 (ICOME 2013)** which was held by Department of Mechanical Engineering ITS (Lombok : 2013) oral presentation of "Redesign ITS Central Library through Smart Building"
31. **Total Day on Technical Expertise in Oil & Gas Development Projects** which was held by Total E&P Indonesia (Surabaya : 2012)

32. **Seminar of Knowledge Management in Astra (Jelajahi Dunia Astra)** which was held by Astra (Surabaya : 2012)
33. **Training of Kakak Pemandu Keilmiahan (Scientific Mentor) ITS 2012** which was held by BEM ITS (Surabaya : 2012)
34. **Kunjungan Industri (Industrial Visit) BEM FTI – ITS 2012** which was held by BEM FTI-ITS field trip to PT. Meco Inoxprima (Metal Manufacturer Company) (2012)
35. **Kunjungan Industri (Industrial Visit) HMMT FTI – ITS 2011** which was held by HMMT FTI-ITS field trip to PT. Semen Gresik (Cement Producer Company) (2011)
36. **MATERIAL Ultrasonic Test Training** which was held by HMMT FTI-ITS (Surabaya : 2011)
37. **Famous and Interactive Seminar about Industrial Technology in Companies (FANTASTIC)** which was held by BEM FTI-ITS (Surabaya : 2011)
38. **National Achievement and Motivation Seminar 2011 (NAMS)** which was held by BEM ITS (Surabaya : 2011)
39. **Program Literatur Islam Terpadu 1 (PEARLITE 1)** which was held by Lembaga Dakwah Jurusan (LDJ) Ash Habuul Kahfi ITS (Surabaya : 2011)
40. **PKTI 2010 (Pelatihan Karya Tulis Ilmiah 2010)** which was held by HMMT FTI-ITS (Surabaya : 2010)
41. **LKMM TD XI (Latihan Keterampilan Managemen Mahasiswa Tingkat Dasar XI)** which was held by HMMT FTI-ITS (Surabaya : 2011)
42. **LKMM Pra TD (Latihan Keterampilan Managemen Mahasiswa Pra Tingkat Dasar)** which was held by BEM FTI-ITS (Surabaya : 2010)
43. **GERIGI ITS (Gerakan Integralistik ITS) 2010** which was held by BEM ITS (Surabaya : 2010)
44. **ESQ Basic Training** which was held by BEM ITS (Surabaya : 2010)

Educational Qualification

1. **Ir/P.E.** (Professional Engineering or Pendidikan Profesi Insinyur), 2022-2023 [Engineer's Code of Ethics and Professional Ethics, Professionalism, Occupational Health Safety & Environment, Engineering Practice, Case Study, Seminar], SIMT ITS, Surabaya, **GPA: 4.00/4.00.**
2. **M.T/M.Eng** (Magister Teknik/Master of Engineering), 2013-2015 [Structure and Mechanic of Materials, Metallurgical Thermodynamics, Design of Corrosion Control, Welding and Casting Metallurgy, Advanced Materials, Heat Treatment and Surface Treatment, Advanced Polymers and Composites, Extractive Metallurgy, Nanotechnology]; Departement of Materials and Metallurgical Engineering, ITS, Surabaya GPA: **3.78/4.00.**
3. **M.Sc** (Master of Science), 2014-2015 [High Temperature Corrosion, Physical Metallurgy, Mechanical Properties of Materials, Casting and Foundry, Polymers and Composites, X-Ray Diffraction Analysis, Transmission Electron Microscope, Surface Modification of Materials]; Department of Materials Science and Engineering, NTUST, Taipei GPA: **3.67/4.00.**
4. **S.T/B.E.** (Sarjana Teknik/Bachelor of Engineering), 2010-2014 [Metallurgy, Polymers, Ceramics, Composites, Corrosion Control, Basic Chemistry, Basic Physics, Mechanical Behaviour of Materials, Phase Diagram, Material Characterizations, Coating, Super alloy material, Thermodynamics, Transport Phenomena, Heat Transfer, Fluid Dynamics, Welding Technology, Machine Element, Calculus, Engineering Mathematics]; Departement of Materials and Metallurgical Engineering, ITS, Surabaya GPA: **3.82/4.00.**

Working and Internship Experiences

1. **PhD Researcher:** Currently working as PhD Researcher Norwegian University of Science and Technology at Department of Materials Science and Engineering, the research is about Modelling of kinetics and CFD Modelling of Fluidized Bed Reactor as part of Zero Emission Aluminium (ZEAL) Project (September 2023 – present)
2. **Lead Engineer, Reduction and Casting Matters (BOD-3)** (June 2023 – September 2023)
3. **Process and Modelling Engineer** (May 2016 – May 2023)
4. **Advisor at Askpert.id on the field of Aluminium Industry** (August 2022 – September 2023)
5. **Registered as Industrial Lecturer (Practical Lecturer) at Institut Teknologi Kalimantan, Balikpapan** (November 2021 – present)
6. **Registered as Lecturer at Akademi Industri Pertambangan Bukit Asam (AKIPBA), Tanjung Enim Sumatera Selatan** (August 2018 – present)
7. **Internship Trainee (Short-Term Secondment) at Emirates Global Aluminium (EGA), UAE** (April – June 2019)
8. **Researcher (Master Degree Thesis) at Nano and Grain Boundary Laboratory at Materials and Science Engineering NTUST** (August 2014-June 2015)
9. **Researcher (Undergraduate and Master Degree Thesis) at Material Physics Laboratory at Dept. Materials and Metallurgical Engineering ITS** (August 2013-August 2014)
10. **Energy Audit Project of ITS** as a leader supervised 10 people (April 2013- April 2014)
11. **Laboratory Assistant at Metallurgy Laboratory at Dept. Materials and Metallurgical Engineering ITS** (September 2012- March 2014)
12. **Internship Program at PT. PINDAD (Persero)** (Juni 2013-Juli 2013)
13. **Lecturer Assistant of Thermodynamic of Materials at Dept. Materials and Metallurgical Engineering ITS** (February 2013-September 2013)
14. **Lecturer Assistant of Heat Transfer at Dept. of Materials and Metallurgical Engineering ITS** (September 2012-February 2013)
15. **Lecturer Assistant of Engineering Mechanics at Dept. of Materials and Metallurgical Engineering ITS** (February-July 2012)
16. **Lecturer Assistant of Basic Physics at Dept. of Materials and Metallurgical Engineering ITS** (September 2011-February 2012)

Organization Experiences

1. **Member of Asosiasi Profesi Metalurgi Indonesia (Prometindo), Indonesia Association of Metallurgical Professional** (2021 – Present)
2. **Member of Logam, Elektronik dan Mesin Serikat Pekerja Seluruh Indonesia (LEM-SPSI) at PT Inalum (Persero)** (2016 – Present)
3. **Member of Ikatan warga Islam Inalum (IWII) at PT Inalum (Persero)** (2016 – Present)
4. **Member of Indonesian Student Association** at National Taiwan University of Science and Technology (NTUST-ISA) (2014-2015)
5. **Staff of Departement of Research and Technology** at Himpunan Mahasiswa Teknik Material dan Metalurgi (HMMT) ITS (2011-2013)
6. **Staff of Departement of Syi'ar** at Ash-Haabul Kahfi (AK) ITS (2011-2012)
7. **Staff of Design and Manufacture Divison** at Antasena Shell Eco Marathon ITS Team 2012 (2011-2012)

Instruments Handled

1. Thermal Imager, HeatFlow Meter (Kyoto and Hukseflux), Gaussmeter, Thermogun, Thermocouples, Gas Flow Meter, Bath Superheat apparatus, LIBS Metal Analyzer, Alscan Hydrogen Analyzer, Prefil Footprinter Inclusion analyzer,
2. Scanning Electron Microscope (SEM-EDX), X-Ray Diffraction (XRD), Fourier Transform Infra-Red (FTIR), Thermogravimetry (TGA) and Differential Scanning Calorimetric (DSC), Spray Pyrolysis (SP), Horizontal and muffle furnace, Flame Sprayed Coating, Planetary Ball Milling

Computer skill

1. Microsoft Offices
2. OpenFoam, MFiX, Primavera V60, MS Project, ANSYS Fluent, Thermal-Electrical, Mechanical, Maxwell, COMSOL Multiphysics, Autodesk Fusion 360, Autodesk Inventor, Ms. Office, Origin Lab, Match! For Diffraction, Highscore for Diffraction, Eva for Diffraction, Wolfram Mathematic, CorelDraw, Photoshop, AutoCAD, 3DX Max

Languages known

1. Bahasa Indonesia (Read, Write and Speak) – *Native*.
2. Javanese (Read, Write and Speak) – *Native*.
3. English (Read, Write and Speak) – *Professional* (IELTS Academic band 6.5)
4. Chinese (Speak) – *Very early*

About me

I am a materials science and engineering professional with an M.Sc degree from National Taiwan University of Science and Technology, and over seven years of experience in the aluminium industry sector. As a certified Professional Engineer by Persatuan Insinyur Indonesia and a Project Management Professional (PMP®), I blend deep technical knowledge with robust project management acumen in my endeavors.

Currently, I am delving deeper into my field as a PhD candidate at the Norwegian University of Science and Technology (NTNU), specializing in Materials Science and Engineering. My research is primarily focused on the Kinetics and CFD Modelling of the Zero Emission Aluminium (ZEAL) Project, aiming to revolutionize emissions in aluminium production processes.

Simultaneously, I am serving as a Lead Engineer, Reduction and Casting Matters at PT INALUM (Persero). My role involves managing an array of technical matters including process design, improvement, modeling and simulation, materials selection, and technology development. I am specifically involved in a strategic project aimed at optimizing the production capacity of INALUM by upgrading the technology of the Reduction Cell. This endeavor has enabled me to collaborate with numerous professionals globally, ranging from aluminium experts to project management specialists.

In addition to my technical prowess, my extensive awareness of business, management, economic, and digitalization facets empowers me to make balanced, informed decisions aligned with overarching organizational objectives. I also actively disseminate my knowledge and insights as a lecturer at several universities in Indonesia, fostering the development of future professionals in materials science and engineering.

With a harmonious amalgamation of practical and theoretical knowledge, complemented by my project management credentials, I contribute uniquely and substantially to any team. I am continuously eager to employ my expertise to novel challenges and explore new horizons while maintaining the highest standards of professionalism and excellence in my work.

*I declare that the particulars stated in this application are true to the best of my knowledge and
that I have not wilfully suppressed any materials or facts*

Trondheim, September 26th, 2023
Parindra Kusriantoko