



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET, DAN TEKNOLOGI

UNIVERSITAS JEMBER

Jalan Kalimantan 37 Kampus Tegalboto Kotak Pos 159 Jember 68121
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Dr. Ir. Mochamad Asrofi, S.T., IPM.

Lektor



Bidang : Ilmu Teknik Mesin, Bio Material

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Alamat Kantor : Gedung Program Studi Teknik Mesin Fak. Teknik
UNEJ

PENDIDIKAN

- S.T, Universitas Jember, INDONESIA, 2015
- Dr, Universitas Andalas, Indonesia, 2019
- Ir., Universitas Jember, Indonesia, 2021

MATA KULIAH YANG DIAMPU

Tahun	Semester	Mata Kuliah	SKS	Program Studi
2024	Ganjil	Praktikum Uji Bahan	1	Teknik Mesin
2024	Ganjil	Rekayasa Keteknikmesinan	2	Magister Teknik Mesin
2024	Ganjil	Ekstraksi	2	Teknik Mesin
2024	Ganjil	Ilmu Bahan	2	Teknik Mesin
2024	Ganjil	Polimer	2	Teknik Mesin
2024	Ganjil	Proposal Penelitian	2	Teknik Mesin
2024	Ganjil	Teknologi Pengelasan	2	Teknik Mesin
2024	Ganjil	Polimer	3	Magister Teknik Mesin
2024	Ganjil	Publikasi Ilmiah	3	Magister Teknik Mesin

PENGALAMAN PENELITIAN

Tahun	Judul Penelitian	Status	Sumber Dana	Besarnya Dana
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2022	Pengembangan Edible Film Biokomposit Soy Lecithin/pati Singkong Dengan Pengisi Serat Ampas Tebu Sebagai Produk Kemasan Pangan Ramah Lingkungan (biodegradable)	Ketua	Hibah Penelitian Pasca Doktor (PPD)	26.500.000
2022	Pengembangan Selulosa Nanofiber Ampas Tebu Sebagai Material Pengisi Bioplastik Bermatriks Biopolimer Pati	Ketua	Hibah Pendukung IDB	62.500.000
2021	A Novel Method To Enhance The Properties Of Biocomposite From Polyvinyl Alcohol (pva) Reinforced Mango Seed Waste Fiber	Ketua	Hibah Reworking Skripsi/Tesis	10.720.000
2021	Bio-degradable Plastic Dari Serat Selulosa Ampas Tebu Bermatriks Pati Singkong Dan Polylactid Acid (pla)	Ketua	Hibah Penelitian Pasca Doktor (PPD)	30.000.000
2021	Green Packaging Berbasis Polylactid Acid (pla) Dan Pati Singkong Diperkuat Cellulose Paper Ampas Tebu	Ketua	Hibah Pendukung IDB	57.500.000
2021	Sifat Mekanik Bahan "green Composite" Berpenguat Selulosa Ampas Tebu Dan Serbuk Kayu Jati Dengan Matriks Kombinasi Asam Poli Laktad (pla Dan Pati Garut (maranta Arundinacea)	Anggota	Hibah Penelitian Percepatan Guru Besar (PGB)	75.000.000
2020	Pengembangan Bioplastik Ramah Lingkungan Dengan Penguat Nano Biomaterial Dari Serat Selulosa Ampas Tebu	Ketua	Hibah Pendukung IDB	41.612.500
2019	Bionanokomposit Dari Polivinil Alkohol (pva) Dan Nanoselulosa Ampas Tebu Sebagai Bahan Alternatif Kemasan Ramah Lingkungan	Ketua	Hibah Dosen Pemula	20.000.000

PENGALAMAN PENGABDIAN

Tahun	Judul Pengabdian	Status	Sumber Dana	Besarnya Dana
2022	Peningkatan Kapasitas Bumdes Mayangan Sebagai Upaya Untuk Mewujudkan Desa Mayangan, Kecamatan Gumukmas Sebagai Desa Sejahtera Mandiri	Anggota	Hibah Pengabdian Desa Binaan	30.000.000
2020	Ibm Kelompok Usaha Rumahan Desa Karang Sari Untuk Meningkatkan Kualitas Produk Penjualan Krupuk Cumi	Ketua	Hibah Pengabdian Pemula (PPP)	10.000.000



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2019	Peningkatan Kondisi Sosial Ekonomi Masyarakat Anggota Forum Nelayan "mutiara Harapan" Dusun Jeni, Desa Kepanjen, Gumukmas Jember	Anggota	Hibah Pengabdian Kemitraan (PPK)	25.000.000
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PENGALAMAN PENDANAAN INTERNATIONAL

Tahun	Judul	Status	Sumber Dana	Besarnya Dana
2023	Fabrikasi Dan Karakterisasi Komposit Filamen 3d Printing Berbasis Pla Dan Serat Selulosa Ampas Tebu Untuk Aplikasi Biomedis	Ketua	Hibah Penelitian Kerjasama Internasional	71.892.000

LUARAN PENELITIAN DAN PENGABDIAN

A. Jurnal Nasional

- Mochamad Asrofi, Danang Yudistiro, M Fahrur Rozy Hentihu, Dedi Dwilaksana, Rahma Rei Sakura, Salahuddin Junus, Skriptyan Noor Hidayatullah Syuhri, Taufik. 2023. Peningkatan Kualitas Produk Material Komposit Fiberglass Menggunakan Vacuum Assisted Resin Infusion di Industri Wangi Fiberglass Banyuwangi. Medani: Jurnal Pengabdian Masyarakat. 2(3). <https://doi.org/10.59086/jpm.v2i3.366>
- Agus Triono, Hary Sutjahjono, Mochamad Asrofi, Rahma Rei Sakura, Sumarji, Dedi Dwilaksana, Robertoes Koekoeh Koentjoro Wibowo, . 2023. PENGARUH LAJU TEMPERATUR SOLIDIFIKASI TERHADAP KRISTALINITAS NANO SENG OKSIDA DENGAN METODE SIMULASI MOLEKULAR DINAMIK. STATOR. 6(1). <https://jurnal.unej.ac.id/index.php/STATOR/index>
- Yuni Hermawan, Mochamad Asrofi, Ahmad Adib Rosyadi, Mahros Darsin, Firman gustiawan. 2022. Optimization of Electroplating Thickness Results for SS400 Steel Using the Taguchi Method. Polimesin. 20(2). <https://e-jurnal.pnl.ac.id/polimesin/issue/view/337>
- Mochamad Asrofi, Setyo Pambudi, S.T., M.T., Agus Triono, S.T., M.T., Charismanda Adilla Trisianto, S.T., M.T., Muhammad Dwi Karisma, Dimas Aditya, Irjik Abror Maulana Irfida, Dinul Maulidin, Prayoga Krisna Febriaji. 2022. Pembuatan Perahu Fiber Glass untuk Menunjang Wisata Sasak Gantung Genteng Kulon Banyuwangi. Jurnal Abdi Masyarakat Indonesia (JAMSI). 2(3). <https://doi.org/10.54082/jamsi.380>
- Mochamad Asrofi, Agus Triono, Iid Mufaidah, Yeni Variyana, R.A. Ilyas. 2021. Metal Oxides as Soluble Nano Catalyst on Biodiesel: A Review. Journal of Applied Agricultural Science and Technology. 5(2). <https://doi.org/10.32530/jaast.v5i2.27>
- Salahuddin Junus, Sujito, Santoso Mulyadi, Yuni Hermawan, Mochamad Asrofi, Afril Priyanto, Devita Amelia. 2021. Aplikasi Serat Alam Muntingia calabura sebagai Pengisi dalam



Biokomposit Bermatriks Polivinil Alkohol (PVA): Karakteristik Sifat Kuat Tarik dan Permukaan Patahan. *Agroteknika*. 4(1).

- Sujito, Salahuddin Junus, Yuni Hermawan, Mochamad Asrofi, Santoso Mulyadi, Devita Amelia, Afril Priyanto. 2021. Aplikasi Serat Alam *Muntingia calabura* sebagai Pengisi dalam Biokomposit Bermatriks Polivinil Alkohol (PVA): Karakteristik Sifat Kuat Tarik dan Permukaan Patahan. *Agroteknika*. 4(1). <https://doi.org/10.32530/agroteknika.v4i1.103>
- Mahros Darsin, Mochamad Asrofi, Joni Anggianto, Soesatijono. 2020. Upaya mengatasi cacat produksi botol kemasan air 600 ml dengan metode Statistical Process Control. *Jurnal Litbang Industri*. 10 Desember 2020 : 129 - 137(2). <http://ejournal.kemenperin.go.id/jli/article/view/6139>
- Mochamad Asrofi, . 2020. Alat Sablon Untuk Menunjang Tampilan Kemasan Krupuk Cumi Pada Kelompok Usaha Poklhasar Mandiri Banyuwangi. *SELAPARANG : Jurnal Pengabdian Masyarakat Berkemajuan*. 4(1). <https://doi.org/10.31764/jpmb.v4i1.3330>

B. Jurnal Internasional

- Mochamad Asrofi, R. A. Ilyas, Ph.D., M. L. Sanyang, A. O. Adegbenjo, I. Idris, Senthil Muthu Kumar Thiagamani, C. D. Midhun Dominic, V. F. Knight, M. N. F. Norrrahim, L. Rajeshkumar, M. R. M. Asyraf. 2023. Influence of ultrasonication time on the various properties of alkaline-treated mango seed waste filler reinforced PVA biocomposite. *Reviews on Advanced Materials Science*. 62(20230137). <https://doi.org/10.1515/rams-2023-0137>
- Rahma Rei Sakura, Mochamad Asrofi, Salahuddin Junus, Robertus Sidartawan, R. Puranggo Ganjar Widityo, Gindeka Bimara, Rizky Akhmad Prayogi. 2023. Effect of Current, Time, Ethanol Concentration, and pH Electrolyte on ZnO Coated Carbon Fiber Using Electrochemical Deposition Method . *Mechanical Engineering for Society and Industry* . 3(2). <https://journal.unimma.ac.id/index.php/mesi/article/view/10493>
- Salahuddin Junus, Franciscus Xaverius Kristianta, Dedi Dwilaksana, Mochamad Asrofi, Rahma Rei Sakura, Digdo Listyadi Setyawan, Nasrul Ilminnafik, Dr. Melbi Mahardika, S.T., Dr. Putri Amanda, R.A. Ilyas, PhD. 2023. Edible Film Biocomposite based on Cassava Starch/Soy Lecithin Reinforced by Sugarcane Bagasse Fiber: Mechanical, Morphological and Moisture Properties. *BIO Web of Conferences*. 69(03019). <http://dx.doi.org/10.1051/bioconf/20236903019>
- Mochamad Asrofi, R. Puranggo Ganjar Widityo, Wazirotus Sakinah, Sumarji, . 2023. The Characterization of the Sandwich Composite Consisted of Coconut Fibre-Polyester Resin and its Variations of Wood Core. *Journal of Mechanical Engineering*. 20(3). <https://jmeche.uitm.edu.my/browse-journals/regular-issue/regular-issue-2023-vol-20-3/>
- Mahros Darsin, Danang Yudistiro, Mochamad Asrofi, Ahmad Rendi Maulana. 2023. Effect of Temperature, Holding Time, and Addition of Sn on Density on Metal Injection Molding Sintering Process. *Journal of Engineering and Technological Science*. 55(2). <https://journals.itb.ac.id/index.php/jets/article/view/18780/6211>
- Zulfikar, Mochamad Asrofi, Edy Supriyanto, Sutisna, Sujito, Imam Rofii, Ummi Lailatul Jannah,



- MSi.. 2023. Characteristics of Hemp/Bagasse Fibers Hybrid Reinforced Poly-lactic Acid (PLA) Green Composite (GC). *Gongcheng Kexue Yu Jishu/Advanced Engineering Science*. 55(02). <https://www.gkyj-aes-20963246.com/>
- Istiqomah Rahmawati, Meta Fitri Rizkiana, Ir. Bekti Palupi, Ditta Kharisma Yolanda Putri, Helda Wika Amini, Mochamad Asrofi, Felix Arie Setiawan, M. Maktum Muharja Al Fajri, Rizki Fitria Darmayanti, Boy Arief Fachri, Arief Widjaja, Abdul Halim. 2022. Biobutanol Production from Cocoa Pod Husk Initiated with Sequential Processes of Pectin Extraction, Microwave Pretreatment, and Enzymatic Hydrolysis, and extractive fermentation. *Bioresource Technology Reports*. 21 (101298). https://www.sciencedirect.com/science/article/pii/S2589014X22003553?casa_token=tjHiFVfj448AAAAA:1wEk0VL91Svz72zP1Dq0HNYHs1c9Or1jLZHkzh5noe72rEa0pehVJOE8-0ZXpHie_2L0-lpCB7c
 - Mochamad Asrofi, Rizki Fitria Darmayanti, M. Maktum Muharja Al Fajri, Mahardika Fahrudin Rois. 2022. Low-Cost, Sustainable, and High-capacity Magnetite-Cellulose Adsorbent from Ramie Stem (*Boehmeria nivea* L.) as Oil Spill Solution. *Chemical Papers*. 76(). <https://www.springer.com/journal/11696>
 - Rika Dwi Hidayatul Qoryah, Dwi Djumhariyanto, Ahmad Syuhri, Hari Arbiantara Basuki, Yuni Hermawan, Mochamad Asrofi, Dedi Dwilaksana, Mahros Darsin, Robertus Sidartawan, Nofa Kirana Pratama. 2022. Study of Chip Formation in Turning of AISI 4340 under Minimum Quantity Lubrication (MQL). *Gongcheng Kexue Yu Jishu/Advanced Engineering Science*. 54(2). <http://www.gkyj-aes-20963246.com/article/study-of-chip-formation-in-turning-of-aisi-4340-under-minimum-quantity-lubrication-mql>
 - Salahuddin Junus, Mochamad Asrofi, Sujito, Santoso Mulyadi, Sumarji, Robertus Sidartawan, Dr. Nur Abdillah Siddiq, Prof. Dr. S.M. Sapuan, Dr. R.A. Ilyas, Jan Pernando Saragih, S.T.. 2022. Tensile Strength and Thermal Resistance Analysis of Polylactic Acid (PLA) and Cassava Starch with Cellulose Paper Sugarcane Bagasse as Filler. *Gongcheng Kexue Yu Jishu/Advanced Engineering Science*. 54(01). <https://www.gkyj-aes-20963246.com/article/tensile-strength-and-thermal-resistance-analysis-of-poly-lactic-acid-pla-and-cassava-starch-with-cellulose-paper-sugarcane-bagasse-as-filler>
 - Mochamad Asrofi, Devita Amelia, Edi Syafri, Sanjay Mavinkere Rangappa, Suchart Siengchin. 2021. Tensile Strength and Moisture Resistance Properties of Biocomposite Films Based on Polyvinyl Alcohol (PVA) with Cellulose as Reinforcement from Durian Peel Fibers. *E3S Web of Conferences*. 302(02001). <https://doi.org/10.1051/e3sconf/202130202001>
 - Rika Dwi Hidayatul Qoryah, Sujito, Mochamad Asrofi, Yuni Hermawan, Sumarji, Asnawi, Prof. Ir. Dr. S.M. Sapuan, R.A. Ilyas, A. Atiqah. 2021. Effect of alkali treatment of piper beetle fiber on tensile properties as biocomposite based polylactic acid: Solvent cast-film method. *Materials Today: Proceedings*. xx(xx). <https://doi.org/10.1016/j.matpr.2021.02.218>
 - Mochamad Asrofi, Prof. Ir. Dr. S.M. Sapuan, R.A. Ilyas, M. Ramesh. 2020. Characteristic of Composite Bioplastics from Tapioca Starch and Sugarcane Bagasse Fiber: Effect of Time Duration of Ultrasonication (Bath-Type). *Materials Today: Proceedings*. 46(Part 4). <https://doi.org/10.1016/j.matpr.2020.07.254>
 - Sujito, Mochamad Asrofi, Dr. Edi Syafri, S.T., M.Si., Prof. Ir. Dr. S.M. Sapuan, R.A. Ilyas, B.Sc., Ph.D.. 2020. Improvement of Biocomposite Properties Based Tapioca Starch and Sugarcane



Bagasse Cellulose Nanofibers. Key Engineering Materials. 849().
<https://doi.org/10.4028/www.scientific.net/KEM.849.96>

- Mochamad Asrofi, Gaguk Jatisukanto, Hary Sutjahjono, Rahma Rei Sakura, . 2020. The Effect of Temperature and Volume Fraction of Mahoni (*Swietenia mahagoni*) Wood Charcoal on SS400 Steel Using Pack Carburizing Method: Study of Hardness and Microstructure Characteristics. AIMS Materials Science. 7(3). <https://doi.org/10.3934/matricsci.2020.3.354>
- Triana Lindriati, Mochamad Asrofi, Hari Arbiantara Basuki, Herlina, . 2020. Optimization of Meat Analog Production from Concentrated Soy Protein and Yam (*Xanthosoma sagittifolium*) Powder using Pasta Machine. Food Research. 4(3).
- Mochamad Asrofi, Sumarji, Hari Arbiantara Basuki, MOCHAMAD GERINDO DWI AQSHO. 2020. Tensile Properties and Fracture Morphology of Polyethylene Terephthalate Mixed Rice Starch Particle Based Blend Composites. Material Science Research India. 17(1). www.materialsciencejournal.org
- Rahma Rei Sakura, Salahuddin Junus, Mochamad Asrofi, Sumarji, Ahmad Wafi. 2020. The Effect of Sic and Addition Mg Volume Fraction on Characteristics Al6061-Sic Composite. International Journal of Scientific & Technology Research. 9(04). <http://www.ijstr.org>
- Sujito, Mochamad Asrofi, Dr. Edi Syafri, S.T., M.Si.. 2019. Moisture Resistance of Sugarcane Bagasse Cellulose Filled Tapioca Starch Biocomposites: Effect of Cellulose Loading. International Journal of Progressive Sciences and Technologies (IJPSAT-IJSHT). 18(1). <http://ijpsat.ijshjournals.org/index.php/ijpsat/article/view/1444/757>
- Mochamad Asrofi, Prof. Salit Mohd Sapuan, Dr. Rushdan Ibrahim, Prof. Dr.-Ing. Ir. Hairul Abral, Dr. M.R. Ishak, Prof. E.S. Zainudin, Dr. Mahmud Siti Nur Atikah, Dr. Muhammad Roslim Muhammad Huzaifah, Dr. Ali Mohd Radzi. 2019. Sugar palm (*Arenga pinnata* (Wurmb.) Merr) cellulosic fibre hierarchy: a comprehensive approach from macro to nano scale. Journal of Materials Research and Technology. 8(3). <https://doi.org/10.1016/j.jmrt.2019.04.011>
- Mochamad Asrofi, Dedi Dwilaksana, Prof. Dr.-Ing. Ir. Hairul Abral, Rahmat Fajrul, S.T.. 2019. Tensile, Thermal, And Moisture Absorption Properties of Polyvinyl Alcohol (PVA) / Bengkuang (*Pachyrhizuserosus*) Starch Blend Films. Material Science Research India. 16(1). <http://dx.doi.org/10.13005/msri/160110>
- Mochamad Asrofi, Dr. Eng. Jon Affi, S.T., M.T., Devi Chandra, Ph.D. 2019. Mechanical and Microstructure Properties on Al-Cu Joint processed by Friction Stir Welding: The Effect of Tilt Angle Tool. Material Science Research India. 16(1). <http://dx.doi.org/10.13005/msri/160108>

C. Prosiding International

- Robertoes Koekoeh Koentjoro Wibowo, Mochamad Asrofi, Hari Arbiantara Basuki, Dwi Djumhariyanto, Mahros Darsin, Moch. Agus Choiron, M. Khoirur Rifky. 2024. The effect of 3D printing parameter variations on tensile strength using filament made of PLA-Titanium. THE INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGY AND MULTIDISCIPLINE (ICATAM2022).



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D. Buku (Book Chapter)

- Mochamad Asrofi, Bambang Kuswandi, . 2020. Nano-technologies and reinforcements. Elsevier. 978-0-12-818795-1