

Indonesia Toray Science Foundation

32nd ITSF Program Year 2025

Science and Technology Research Grant's 18 Selected Proposals

No	No. Proposal	Name	Name of Institution/University	Research Title
1	4	Yanoar Pribadi Sarwono & Ph.D.	National Research and Innovation Agency (BRIN) Organisasi Riset Nanoteknologi dan Material Pusat Riset Fisika Kuantum Gedung 720, Kawasan PUSPIITEK Serpong, Tangerang Selatan Banten 15314	STO-Lib: A Software Framework for Slater Orbital Basis Optimization on NISQ Quantum Computers
2	5	Dr. Riri Jonuarti, M.Si.	Universitas Negeri Padang Fac. Mathematics and Natural Sciences (FMIPA) Dept. Physics Jalan Prof. Dr. Hamka Air Tawar Barat, Padang West Sumatra 25131	First-Principles Investigation of g-C ₃ N ₄ /TM-Doped Fe ₂ O ₃ Z-Scheme Heterojunctions: Structural and Charge Transfer Engineering for Efficient Photocatalytic Water Splitting
3	19	Endang Rahmat, S.T., Ph.D	Universitas Bina Nusantara Faculty of Engineering Dept. Biotechnology Jl. Jalur Sutera Bar. No.Kav. 21, RT.001/RW.004, Panunggangan, Kec. Pinang Banten 15143	Chromosome-level Whole Genome Sequencing of "Temulawak" Medicinal Plant (Curcuma Xanthorrhiza Roxb.) to Uncover its Comprehensive Genetic Information
4	54	Shella Permatasari Santoso, S.T., Ph.D., IPM.	Universitas Katolik Widya Mandala Surabaya Fac. Engineering Dept. Chemical Engineering Jl. Kalijudan No. 37 East Java 60114	Valorization of Curtain Ivy Biomass into Cellulose-Based Hydrogels Functionalized with Metal-Phenolic Networks for Sustainable Antimicrobial Materials
5	62	Christian Harito, S.T., Ph.D.	Universitas Bina Nusantara Binus Graduate Program Master of Industrial Engineering Jl. Raya Kb. Jeruk No.27, RT.2/RW.9, Kb. Jeruk, Kec. Kb. Jeruk, Kota Jakarta Barat DKI Jakarta 11530	Nitrogen-Doped Graphene Conductive Inks for High-Performance Flexible Electronics via Direct Ink Writing
6	66	Dr.apr.Ratna Annisa Utami	Institut Teknologi Bandung Sekolah Farmasi Farmasetika Jl. Ganesha 10 West Jav 40132	Gliadin-Derived Peptides for Enhanced Cell Permeability: Advancing Protein Delivery Strategies
7	77	Ir. Rendy Muhamad Iqbal, S.Si, M.Si, Ph.D	Universitas Palangka Raya Fac. Mathematics and Natural Sciences Dept. Chemistry Kampus UPR Tunjung Nyaho Jalan Yos Sudarso Central Kalimantan 73112	Surface-Engineered PVDF Membrane with Nanohematite-PEI for Integrated Peat Water Reclamation and Liquid Organic Fertilizer Production in Submerged Membrane Bioreactors
8	79	Peni Ahmadi, Ph.D.	National Research and Innovation Agency (BRIN) Research Center for Vaccine and Drugs Research Organization for Health Jl. Jakarta Bogor, Km 46 West Java 16911	Discovery of a New Anticancer Lead Compound from the Marine Sponge Plakortis sp. and Investigation of its Mechanism of Action
9	93	Ainul Maghfirah, Ph.D. Eng.	Institut Teknologi Bandung Faculty of Mathematics and Natural Sciences Dept. Chemistry Jl. Ganesha no.10 West Java 40132	MXene Nanosheets Modified by Ammonium Based-Ionic Liquid as Novel Adsorbents for Efficient Wastewater Treatment
10	104	Dr. Eng. Rachmawati, S.T., M.Eng.	Institut Teknologi Bandung School of Electrical Engineering and Informatics Electrical Power Engineering Jl. Ganesha No.10 West Java 40132	Advanced Nanocomposite Coating as Insulation Material to Improve High-Voltage Insulators' Performance and Reliability
11	134	Dr. Supatmi, M.Biotech	National Research and Innovation Agency (BRIN) Research Organization for Life Sciences and Environment Research Center for Genetic Engineering Kawasan Sains dan Teknologi (KST) Soekarno Jalan Raya Jakarta-Bogor km 46 West Java	Linking Downstream Lignin Gene Expression in Seed Coat with Seed Cake Lignin Composition of Pongamia pinnata for Biofuel Residue Valorization
12	170	Dr. rer. nat. Isom Hilmi, S.Si., M.Biotech.	Universitas Ahmad Dahlan Fakultas Sains dan Teknologi Terapan Dept. Fisika Jl. Ahmad Yani (Ringroad Selatan) Tamanan Banguntapan Bantul DI Yogyakarta 55166	Corona Plasma-Assisted Germination Enhancement of Rare Orchid Seeds for Es-Situ Conservation of Red List Species
13	179	apt. Eka Noviana, Ph.D.	Universitas Gadjah Mada Fac. Pharmacy Dept. Pharmaceutical Chemistry Jl. Sekip Utara DI Yogyakarta 55281	Genetic Algorithm-Driven Design of β -Lactoglobulin Aptamer for Milk Allergen Testing
14	216	Prof. I Wayan Gede Astawa Karang, S.Si.,M.Si.,Ph.D	Universitas Udayana Marine Science and Fisheries Marine Sciences Jl. Raya Kampus Unud, Jimbaran, Kec. Kuta Sel., Kabupaten Badung Bali 80361	ATLAS-IWs: An AI-Based Digital Atlas Platform of Internal Solitary Waves for Enhancing Maritime Safety and Sovereignty in Indonesian Seas
15	217	Nawwal Hikmah, S.Si., M.Sc.	Universitas Lambung Mangkurat Mathematics and Natural Sciences Chemistry Jl. Jend. Achmad Yani Km. 35.5 South Kalimantan 70714	Development of Alaban Wood-Derived Bio-Carbon Black as a Sustainable Conductive Additive for Li-Ion NMC Cathodes
16	277	Roni Permana Saputra, S.T., M.Eng.Sc., Ph.D., DIC.	National Research and Innovation Agency (BRIN) Research Organization for Electronics and Informatics Research Center for Smart Mechatronics Kawasan Sains dan Teknologi Samaun Samadikun, Jl. Sangkuriang, Dago, Kecamatan Coblong, Kota Bandung West Java 40135	On-Device Tactile Intelligence for Low-Cost Prosthetic Hands Using Bio-Based Stretchable Sensors
17	288	Dr. Suriati Eka Putri, S.Si., M.Si.	Universitas Negeri Makassar Fac. Mathematics and Natural Science Dept. Chemistry Jl. Daeng Tata Raya South Sulawesi 90224	Modification of Pelletized Gelcasted Porous Ceramic Catalyst from Natural Clay to Increase Biodiesel Production Efficiency
18	292	Rikno Harmoko, Ph.d.	National Research and Innovation Agency (BRIN) Research Organization for Life Sciences and Environment Research Center for Genetic Engineering Kawasan Sains dan Teknologi Dr. (H.C.) Ir. H. Soekarno, Jl. Raya Jakarta-Bogor Km.46, Cibinong, Bogor West Java 16911	CRISPR/Cas9-Mediated RDR1 Knockout in Nicotiana tabacum for Enhanced Therapeutic Protein Production in Tropical Climates