



## Dr. Gunawati, S.Si, M.Si

<b>Position</b>	Quantum Physics, Fundamental Physics, Mathematic Physics, (Bachelor Degree of Physics Study Programme) Electrodynamics (Master Degree of Physics Study Programme)
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<b>Academic Career</b>	<p><b>Doctorate course:</b> Universitas Sumatera Utara (USU), Indonesia - Physics Department (2016-2022);</p> <p><b>Magister Course:</b> Institut Teknologi Bandung (ITB), Indonesia- Physics Department (2001-2004);</p> <p><b>Bachelor Course:</b> Institut Teknologi Sepuluh November Surabaya (ITS), Indonesia- Physics Department (1993-1999)</p>
<b>Employment</b>	<p>Assistant Professor of Physics Dept., FMIPA, USK (2007 – present)</p> <ol style="list-style-type: none"> <li>Kepala Laboratorium Termal dan Konversi Energi, (2007-2009)</li> <li>Kepala Laboratorium Teori dan Komputasi, (2013-2016)</li> </ol>
<b>Research and development projects (last 5 years)</b>	<ol style="list-style-type: none"> <li>Karakterisasi dan perlakuan panas terhadap garam tradisional Aceh sebagai kandidat material penyimpanan energi</li> <li>Perancangan Alat Uji Kinerja PCM untuk Thermal Energi Storage</li> </ol>
<b>Collaborations (last 5 years)</b>	Dinas Kelautan dan Perikanan provinsi Aceh
<b>Patents and proprietary rights</b>	
<b>Selective Publications (last 5 years)</b>	<ol style="list-style-type: none"> <li><b>Evi Yufita</b>, Teuku Muhammad Shadiq Maula, Gunawati, Peter Lloyd Woodfield, Elin Yusibani (2025) Physical and Chemical Properties of Gayo Coffee Brewed by Boiling Method with Variation of Particle Coffee Ground, <i>Jurnal Ilmu Fisika</i>, 17, 1, 1979-4657.</li> <li>Ahmadi, Adi Setiawan, <b>Gunawati</b>, Rozanna Dewi (2023) Calibration of arduino-based temperature sensors for parabolic solar collectors with phase change material, <i>MOTIVECTION: Journal of Mechanical, Electrical and Industrial Engineering</i>, 5(3)547-556</li> <li><b>Gunawati</b>, Syahrul Humaidi, Adi Setiawan, Makmur Sirait, Zulkarnain Jalil, Nadila Ramadhani, Amar Makruf, Shafira Riskina, Irhamni Irhamni (2022) Physical Characteristics of Aceh Traditional Salt and Its Potential as Raw Material for Thermal Energy Storage, <i>Journal of Ecological Engineering</i>, 23, 116-122, 2299-8993.</li> <li>Fhelisia Yolanda, Nazli Ismail, <b>Gunawati</b> (2018) Pseudogravity Transformation of Total Magnetic Field Anomaly Data in Bur Ni Geureudong, Bener Meriah, <i>Journal of Aceh Physics Society</i>, volume, 110-113, E-ISSN 2355-8229.</li> <li>Sitti Hadaina, Elin Yusibani, <b>Gunawati</b> (2016) Studi Cacahan Radiasi Sr-90 dan Am-241 untuk Beberapa Filter Rokok Komersial Menggunakan Detektor Geiger-Muller, <i>Journal of Aceh Physics Society (JAcPS)</i>, 5, 1-6, 2355-8229.</li> <li>Kendek Limbong, Nazli Ismail, <b>Gunawati</b> (2016) Qualitative Interpretation of Total Magnetic Field Anomaly Data Reduction Transformation to The Poles in Weh Island, <i>Journal of Aceh Physics society</i>, volume, 72-77, E-ISSN 2355-8229.</li> <li>Khairiaton, Elin Yusibani, <b>Gunawati</b> (2016) Wind Speed Analysis using Weibull Distribution in the Region Blang Bintang Aceh Besar, <i>Journal of Aceh Physics society</i>, volume, 7-13, E-ISSN 2355-8229.</li> <li><b>Gunawati</b> (2011) Attenuation of Microwave signal by Rain at Ka-Band Frequency study in Banda Aceh and environs, <i>Jurnal Natural</i>, 11, 11-15, 1141-8513.</li> <li>Physical and Thermal Properties of MgCl<sub>2</sub> mixed with NaCl at Various Ratios for Solar Thermal Energy Storage Application Author : G Gunawati, A Setiawan, R Syahputri, S Riskina <i>Jurnal Polimesin</i> 23 (2), 253-257, 2025</li> </ol>
<b>Membership</b>	Physical Society of Indonesia (PSI) (2020/2025)
<b>External Link</b>	<a href="https://fsd.usk.ac.id/gunawati/">https://fsd.usk.ac.id/gunawati/</a>