Ir. Ahmad Yunus Nasution, S.T., M.T., Ph.D.

Lecturer of Undergraduate Program in Mechanical Engineering Study Program
Faculty of Engineering
Universitas Sumatera Utara

ahmadjunusa@usu.ac.id

USU Faculty of Engineering

ft.usu.ac.id/en/lecturer/ahmad-yunus-nasution

Ahmad Yunus Nasution, S.T., M.T was born in Padangsidempuan on April 06, 1986. Currently, he is a Mechanical Engineering lecturer at the Universitas Sumatera Utara. He completed his master's degree in Manufacturing Engineering at Pancasila University in 2016.

Publications

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Jurnal nasional terakreditasi
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Jurnal nasional terakreditasi
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Jurnal nasional terakreditasi
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Prosiding seminar internasional
Effect of Adding a Trigger Hole and Cross-Section Foam on the Crash Box in Energy Absorption
AHMAD YUNUS NASUTION

2025
Jurnal nasional
Comparative Study of Experimental Testing and Finite Element Simulation of Hexagonal Crash Boxes Made from AA 6061-T4
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Jurnal internasional bereputasi
Numerical modeling of composite spherical-roof contoured core (SRCC) sandwich panels subjected to blast loading
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Jurnal internasional bereputasi
Bio-Inspired Thin-Walled Straight and Tapered Tubes with Variable Designs Subjected to Multiple Impact Angles for Building Constructions
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Prosiding seminar internasional

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MUHAMMAD IBRAHIM SYAH , Nurcholis , AHMAD YUNUS NASUTION

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Prosiding seminar internasional

Analysis of redesigning 3 axis motor control using arduino mega on a CNC milling machine unit

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Jurnal internasional bereputasi

Bio-Inspired Thin-Walled Straight and Tapered Tubes with Variable Designs Subjected to Multiple Impact Angles for Building Constructions. Buildings 2025, 15, 620

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Jurnal internasional bereputasi

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2024
Jurnal nasional terakreditasi

Investigation of the Impact Strength of MC Blue Material Due to Temperature Variations

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Jurnal internasional bereputasi

Effect of number of triggers and shape of crash box on energy absorption during experimental collision

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Numerical modeling of composite spherical-roof contoured core (SRCC) sandwich panels subjected to blast loading

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Jurnal nasional terakreditasi

Analysis Of Energy Absorption In Crash Box With Variation Of Trigger Hole Cyrcle Model Using Experimental Tests

TOGU MARTUA SIREGAR , TANIA ALDA , AHMAD YUNUS NASUTION

2024
Artikel ilmiah

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Jurnal nasional terakreditasi

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Jurnal nasional terakreditasi

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Jurnal nasional

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Jurnal internasional bereputasi

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DESAIN DAN ANALISA DRONE PENYEMPROT PESTISIDA DENGAN KAPASITASPENYEMPROTAN 0,5 LITER/MENITAhmad Yunus Nasution ST.,MT.Â¹* Azmi Muhammad2Departemen Teknik Mesin,Fakultas Teknik Universitas Sumatera UtaraÂ¹Jurusan Teknik Mesin,Falkultas Teknik Universitas Muhammadiyah JakartaÂ²*Email: ahmadjunusa@usu.ac.idABSTRAKPada perkembangan zaman ini, kemajuan teknologi berkembang dengan pesat sehingga persaingan didalam dunia industri sendiri menuntut agar adannya peningkatan inovasi guna

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Jurnal nasional

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2022

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