

## Cuprins

Modeling a pick and place mechanism used in factories <b>TAMAȘ Eugen-Adrian, COCOLOȘ Ana Maria Nicoleta</b> .....	1
The construction of a model of the shaping mechanism and its kinematic analysis using the MATHCAD software <b>MEHEDINȚI Patricia Camelia, PEREȚEANU Adrian Iulian, STAN Andreea Georgiana</b> .....	7
Bi-mobile robot positional and kinematic modeling <b>GHEORGHÎȚĂ Alexandru</b> .....	15
Structural analysis and modeling in Inventor of a forging mechanism <b>DIACONU Ramona, DRAGAN Adrian</b> .....	20
Modelling of an overhead valve engine mechanism <b>POPA Andrei-Sebastian, GRECU Andrei-Bogdan, TOȘU Tiberiu-Nicolae</b> .....	25
Impact of IOT in logistics <b>ȘTEFAN Bianca Minodora</b> .....	30
Structural and functional characteristics of a seedlings transplanting manipulator <b>SOARE Gabriel Alexandru, ZAMFIR Andreea, TALĂ George, BURTAN Alexandru Cosmin, ILIE Florin Cosmin</b> .....	34
Study regarding the construction and use of surgical robots <b>DAVIDESCU Andrei-Iulian, DINU Sabrina-Alexandra, OLTEANU Andreea-Anamaria</b> .....	40
Modeling and simulation of a multifunctional recovery system <b>TODERIȚĂ Andra Petronela</b> .....	46
3D modeling and printing of a robotic arm <b>MEILESCU Mihai</b> .....	54
Modeling, simulation and realization of a mechanical system for moving on snow <b>CIOBANU Alexandru Costin</b> .....	60
Robotization of palletization processes <b>GEORGESCU Tiberiu-Marian, GEORGESCU Aurelia-Mioara, MARIN Mihai-Gabriel</b> .....	68
Dynamic synthesis of diesel engine 12 LDA 28 - LDE 2100 HP - with rotary cam and roller transport rack <b>BIBIREConstantin</b> .....	76
Study on the construction and operation of exoskeleton equipment <b>POPESCU Doina-Maria</b> .....	84
Finite differences in the study of mechanisms <b>CUMPĂNĂȘOIU Georgeta-Simona, BUDUȘAN Rareș-Voicu, CROITORU Simona, FLORESCU Andrei-George</b> .....	91
Opportunities and disadvantages of the technical discipline teaching system in the online version versus face-to-face teaching <b>MIHAI (LUPȘE) Cristina-Elena</b> .....	99
The design, modeling and assembly of a bridge structure made of wood sticks <b>ZENCENCO Emanuel-Eduard</b> .....	107

Pre-dimensioning and design of torsion bars for automobile suspensions <b>ȚURCANU Valentina Ana Maria</b> .....	113
Cutting-edge materials in aerospace industry <b>BOCU Ștefania-Denisa, MOSOR Teodora</b> .....	119
Comparative study regarding the modeling of a beam with solid or beam type elements <b>COSTACHE Filofteia-Bianca</b> .....	125
Design concepts and optimization of kinematic mounts used in space applications <b>BURLOU Andreea</b> .....	131
Optimization of mountain bike suspension triangle <b>MECHTALY Nisrine</b> .....	140
Impact behavior of a new type of sandwich material used for shock damping, proposed in motorcycle helmet manufacturing <b>STANCIU Cornel Răzvan</b> .....	147
Stress analysis for a spark ignition engine piston using FEM <b>COSTACHE Marian</b> .....	160
Designing, analysis and manufacturing of a scissor lift platform <b>EKICI Murat Metehan</b> .....	168
Study of the geometry change in the double- lap adhesive joints <b>STOICA Constantin- Romică</b> .....	176
Finite element analysis of the contact between tooth flanks for an involute spur gear <b>CIMPOERU Marian-Cătălin</b> .....	187
Design and mechanical study of the leg orientation system of a climbing hexapod <b>TÎRSÎNA Nicoleta</b> .....	195
Experimental researches about controlling an AGV using RFID <b>STAICU Mihai Laurențiu</b> .....	203
Experimental researches about controlling an AGV using RFID <b>SCARLAT Andrei-Daniel</b> .....	207
RFID building access system <b>SCARLAT Andrei-Daniel</b> .....	211
Designing and development of a teaching AGV <b>FLOREA Alexandru-Valentin</b> .....	215
Study on the implementation of AGV wireless loading solutions <b>DRĂGAN Alin-Leonard</b> .....	219