

Content

The study of fragile ductile transition in metallic materials using impact tests JELESCU Andrei, DUMITRESCU Florin-Cătălin, OPRIȘAN Luiza Luminița, MARINESCU Marinela Nicoleta, BUTU Larisa.....	1
Research on 3D printing of gears with FDM printer IONESCU George, LISARU Eric, GHEORGHE Gabriela, FENOGHEN Filip, MARINESCU Marinela Nicoleta, BUTU Larisa.....	7
From simulation to automation: streamlining CAD/CAM processes VÂRBAN Edward-Gabriel, MARINESCU Marinela Nicoleta, BUTU Larisa.....	13
Medical device manufacturing technologies SÎRBULESCU Maria-Denisa, ȘELARU Carmen Cristina Ioana, MARINESCU Marinela Nicoleta, Larisa BUTU.....	19
Technologies used in carbon capture and storage PERPELEA Iulia, PREDA Robert Alexandru Mariaș, MARINESCU Marinela, BUTU Larisa.....	25
The potential of piezoelectric materials regarding production of energy MÎNTULEASA Eliza-Nicoleta, MIHAI Claudiu-Andrei, ROȘCA Bogdan, MARINESCU Marinela Nicoleta, BUTU Larisa.....	31
Theoretical studies regarding the vibration of thin plates OPRIȘAN Emilia, TUDORACHE Alexandru, MÂNTESCU Yasmina, DIACONU Diana, PETRICEANU Ștefan Constantin, BOGATU Ana Maria.....	37
Research on developing and building an autonomous robot for surface cleaning CRIȘU Dragoș-Constantin, BĂLAN Andrei-Teodor, COJOCARU Michael, LUPU Adrian- Cătălin, MARINESCU Marinela Nicoleta, BUTU Larisa.....	43
Phone controlled car DOBRETE Andrei-Robert, MIHALACHE Denisa Ana-Maria.....	49
Carthesian robot used for drone landing, charging & storing LIȚOIU Sebastian, PETCU Vlad Adrian.....	53
Autonomous microclimate for regulating the vital parameters of a plant CHELARU Larisa-Georgiana.....	59
Engraving with laser on an articulated six-axis Kuka robot SĂTEANU Claudiu-Constantin , TURTUREA Petre-Gabriel, MOROȘAN Teodor, GIGOI Ștefan-Alexandru, MINODA Shogo-Victor, UNGUREANU Liviu-Marian	65
NavBot the autonomous robot CRAIOVEANU David, FONTA Alin-Vasile.....	71
Modelling and manufacturing of a modular x-y-theta platform with wireless control MUREȘAN Ștefan-Claudiu, MOROȘAN Teodor, CRISTOIU Cozmin Adrian, IVAN Andrei Mario.....	77
Refurbishing and modernizing a robotic manufacturing cell ANASTASIU Alexandru-Ioan, VASILIU Cosmin-Andrei, CULA Ștefan.....	83
Educational application with educational robot with lego type components, ultrasonic and color sensors that solves the rubik's cube CHIRU Diana Mariana.....	88

Analysis of the behavior of modular wooden panels during a drop test, using explicit dynamics DATCU Tudor-Răzvan	94
Study and 3D printing of an articulated arm robot for sorting pharmaceutical products CRISTEA Irina	100
Seismic behaviour of the pallet racks assembly MÎȚĂ Costas-Horia	106
On-Cloud database and 3D printing technologies for small scale IFV hatches monitoring simulator JITARU Eduard – Ștefan, CAZACU Carmen-Cristiana	112
Programming a color-based sorting system and its utility in industry MARIN Cristian Nicolae, CAZACU Carmen-Cristiana	118
The design of digital production systems in the context of Industry 4.0 DINU Mihai-Cristian, IANCU Răzvan-Andrei, CAZACU Carmen-Cristiana	122
The influence of improving the assembly process on the organization and operation of a production line BRATIANU Andreea	128
Improving a plastics injection process by using an efficient production management system BALAN Elena Loredana	136
 Inventory optimization in the automotive industry HRUBARU Marius	144
 The stamping process and the management of a specific project SOVAR-RUNCEANU Marian	152
 Study of active orthosis ILINCA Constantin-Adelin	158
 Adapting playground for children with disabilities SMEU Andreea	165
 Automated handling of materials in Logistics 4.0 SCARLAT Andrei Daniel	172
 Study on the development of a conveyor with reorientation system STOIAN Bogdan-Nicolae	178
 Optimization of AGV routes in a smart warehouse STOICA David-Christian, COSTIUC Andrei-Cosmin, PENUS Claudiu-Alexandru	184