

## CONTENTS

*Mihai Aurel TÎȚU*

*A word from our Editor-in-Chief*.....1

Mihai **BOGDAN**

COMPARISON BETWEEN A LOW COST ARDUINO TRAFFIC LIGHT AND ONE DONE WITH NI  
USB 6008 DAQ DEVICE..... 3

Ștefan **IZVOREAN**, Aurel **NECHITA**, Claudiu **ROTELIUC**, Cristian **NICA**, Adrian Eugen **CIOABLĂ**,  
Virgil **STOICA**

POSSIBLE ACHIEVEMENTS IN COMPONENT MANUFACTURING AND THEIR APPLICATIONS  
IN MOTOR VEHICLES FOR EXPERIMENTAL STANDS BY FDM 3D PRINTING ..... 8

Gheorghe-Andrei **PLEȘA**, Lucian **VIRJAN**

THEORETICAL AND DIMENSIONAL CONSIDERATIONS ON THE REALIZATION OF A LASER-  
BEAM ENGRAVING DEVICE FROM RECYCLABLE MATERIALS OPERATED BY BELT  
TRANSMISSION ..... 14

Lucian **VIRJAN**, Gheorghe-Andrei **PLEȘA**

THEORETICAL AND DIMENSIONAL CONSIDERATIONS ON THE REALIZATION OF A LASER-  
BEAM ENGRAVING DEVICE FROM RECYCLABLE MATERIALS OPERATED WITH SCREW  
TRANSMISSION ..... 20

Maria-Roxana **MARINESCU**, Liviu-Daniel **GHCULESCU**

DETECTION OF MODIFIED CELLS USING “LAB-ON-A-CHIP (LOC)” MICROFLUIDIC DEVICES... 25

Daniel **DRAGU**, Ioan Emeric **KÖLES**, Elena **MUNCUT**

THE RISE, SHINE AND DECAY OF TOPIC MAPS..... 31

Marius Florin **DRAGOESCU**, Lucian **PAUNESCU**, Sorin Mircea **AXINTE**

NONCONVENTIONAL HEATING METHOD USED TO OBTAIN GLASS FOAM FROM CLEAR  
FLAT GLASS WASTE..... 36

Dorel Anton **HOBLE**, Claudia Olimpia **STASAC**, Tibor **FODOR**, Istvan **VEBER**

THE CORRELATION BETWEEN THE ACCELERATION AND CONTACT RESISTANCE TO A  
RELAY IN VIBRATORION MOVING ..... 41

Adrian **BURCA**, Dănuț Pavel **TOCUȚ**, VidicanCălin **TRIPE**, Sorin **PATER**

COMPARATIVE STUDY TEMPER AND COOLING IN TWO AREAS OF A CYLINDRICAL USING  
VARIOUS NUMERICAL MODELING WITH ELTA ..... 46