

Table of Contents

MAIN SUBJECT AREAS	IV
PROGRAM COMMITTEE	V
ORGANIZING COMMITTEE.....	V
CONFERENCE PARTNERS	VI
TABLE OF CONTENTS	VIII
X-RAY COMPUTED TOMOGRAPHY OF THE OSCILLATING BEAM	1
P. BENEŠ, T. FÍLA, P. KOUDELKA, D. KYTÝŘ, M. MACHÁČEK, V. RADA, P. ZLÁMAL, D. VAVŘÍK.....	1
BENDING ANALYSIS OF GLASS FIBER REINFORCED COMPOSITE USING DISTRIBUTED FIBER OPTIC SENSING SYSTEM	3
D. BLAHA, Z. PADOVEC, K. DOUBRAVA, R. KOTTNER, C. NOVOTNÝ, N. SCHMIDOVÁ, M. RŮŽIČKA.....	3
EXPERIMENTAL VERIFICATION OF THE INFLUENCE OF THICKNESS ON 3D PRINTED SAMPLES ON FRACTURE TOUGHNESS PARAMETERS	5
P. BOČAN, A. JÍRA.....	5
MODELING THE COMPRESSION BEHAVIOR OF ADDITIVELY MANUFACTURED LATTICE STRUCTURE AND ENERGY ABSORPTION	7
A. BOUALLEG, J. FIORI, D. CIRKL.....	7
VARIOUS APPLICATIONS OF THE DIGITAL IMAGE CORRELATION METHOD IN THE EXPERIMENTAL ANALYSIS OF BIOMECHANICAL PROBLEMS	9
G. CABAJ, P. BOHÁČ, T. NÁVRAT, P. VOSYNEK, V. APOSTOLOPOULOS, L. KUNZ, J. BENEŠ	9
DETERMINING THE PROPERTIES OF GRP TANK COMPOSITE MATERIALS	13
K. DOUBRAVA, R. KOTTNER, Z. PADOVEC, R. SEDLÁČEK, M. RŮŽIČKA	13
FLEXURAL BEHAVIOUR OF A GLASS-FIBRE REINFORCED POLYMER COMPOSITE: EXPERIMENT AND SIMULATION	17
J. EZENWANKWO, I. PETRIKOVA, J. ZAK	17
IMPACT OF DIRECT AGEING ON MECHANICAL PROPERTIES AND RESIDUAL STRESSES OF MARAGING 300 STEEL MANUFACTURED BY SLM.....	19
R. HALAMA, M. KOŘÍNEK, J. ČAPEK, K. TROJAN, J. HAJNÝŠ.....	19
SELF-HEATING PHENOMENON OF MAGNETORHEOLOGICAL ELASTOMER MRE UNDER DYNAMIC LOADING	21
M. HDAIB, I. PETRIKOVA	21
LOAD CAPACITY ANALYSIS OF SHEATHED CORE STATIC ROPE	23
P. HISEM, J. KOLÁŘ, J. KULT.....	23
METHODOLOGY AND DETERMINATION OF PARAMETERS FOR MODELING BRITTLE ADHESIVE	25
L. HORÁK, J. KRÝSTEK	25
ENHANCED DETECTION OF ROTOR-STATOR CONTACTS USING CONTINUOUS WAVELET TRANSFORM.....	27
V. HOUDEK, L. SMOLÍK, Z. KUBÍN	27

DETERMINATION OF THE DYNAMIC BENDING AND TORSIONAL STIFFNESS OF A BEAM USING ENHANCED FRF	29
R. HUŇADY, P. PALIČKA, E. DUBŇANSKÁ, M. HANČINOVÁ	29
EXPERIMENTAL STUDY OF MECHANICAL PROPERTIES OF TITANIUM ALLOY WITH BETA STRUCTURE	31
A. JÍRA, Z. TOLDE, J. FOJT.....	31
MEASUREMENT OF FATIGUE LOADING OF BUS BODIES AND COMPONENTS ON MODEL AND REAL TRACKS AND TEST POLYGONS	33
M. KEPKA, J. VACLAVIK	33
INFLUENCE OF TEMPERATURE CHANGE ON YOUNG MODULUS OF ELASTICITY OF CFRP	35
B. KROPÍK, M. MATUŠŮ, Z. PADOVEC, T. MAREŠ.....	35
FATIGUE LIFE PREDICTION OF 42CRMO4+QT STEEL USING SELF-HEATING EFFECT	37
M. MATUŠŮ, J. PAPUGA	37
ON A POSSIBILITY OF HIGH-RESOLUTION NEUTRON DIFFRACTION OBSERVATION OF TIAL SUBSTRUCTURE	39
P. MIKULA, A. MICHALCOVÁ, V. RYUKHTIN.....	39
KNOWLEDGE BASE FOR QUALITATIVE ASSESSMENT OF FATIGUE LIFE OF BUS BODYWORK JOINTS	41
R. MINICH, M. KEPKA JR., M. KRIZEK, J. VACLAVIK, M. KEPKA.....	41
STRAINS IN ELECTRONIC ASSEMBLY OF PRINTED CIRCUIT BOARDS	43
R. MUSILOVÁ, J. VÁCLAVÍK	43
SHRINKAGE OF RAMMED UNFIRED EARTH IN LONG TERM OBSERVATION	45
P. PADEVĚT, B. MUŽÍKOVÁ.....	45
ANALYSIS OF THE STRAIN-RATE DEPENDENCE ON THE MECHANICAL PROPERTIES OF POLYPROPYLENE..	47
P. PALIČKA, R. HUŇADY, M. HANČINOVÁ, E. DUBŇANSKÁ.....	47
DETERMINATION OF SHEAR PROPERTIES OF 3D PRINTED COMPOSITE.....	49
P. PAVLÍČEK, M. FUSEK, M. ŠOFER	49
KYOWA MRS-100 DIGITAL TELEMETRY SYSTEM.....	51
MAKE YOUR MEASUREMENT WIRELESS.....	51
K. POGÁNY, A. SARUSI-KISS	51
CHARACTERIZATION OF THE INTERFACIAL TRANSITION ZONE BETWEEN THE CEMENT MATRIX AND GLASS POWDER PARTICLES	53
Z. PROŠEK, A. PALIČKA, P. TESÁREK	53
BENDING ANALYSIS OF GFRP COMPOSITE PLATE WITH A HOLE USING CARBON FIBER SENSORS	55
N. SCHMIDOVÁ, K. DOUBRAVA, Z. PADOVEC, D. BLAHA, R. KOTTNER, C. NOVOTNÝ, M. RŮŽIČKA.....	55
VALIDATION OF SIMULATION OF THE TEMPERATURE FIELD OF A PART DURING SELECTIVE LASER MELTING PROCEDURE.....	57
R. SKÁCELÍK, M. ŠPANIEL.....	57
COMPARISON OF PREDICTION TOOLS FOR CRACK GROWTH UNDER VARIABLE AMPLITUDE LOADING....	59
J. ŠEDEK.....	59

STRUCTURAL HEALTH MONITORING OF COMPOSITE REPAIRS USING ULTRASONIC GUIDED WAVES	61
L. ŠEDKOVÁ, O. VÍCH, I. MLCH, E. HORKÁ.....	61
METHODOLOGIES FOR MODELING AND TESTING BUS HYBRID STRUCTURE ROLL-OVER DYNAMICS	63
S. ŠPIRK, T. KALINA, J. VÁCLAVÍK	63
MEASUREMENT OF RESIDUAL STRESSES	65
J. VÁCLAVÍK, R. MUSILOVÁ	65
BIAXIAL CRUCIFORM TESTING OF FIBER COMPOSITE MATERIALS	67
V. VOMÁČKO, M. ŠULC, J. KOLÁŘ.....	67
OPTIMIZATION OF RESIDUAL STRESSES IN 3D PRINT – HVOF SPRAYED COATINGS.....	69
M. VOSTŘÁK, I. ZETKOVÁ, R. MUSILOVÁ, J. VÁCLAVÍK, M. KRÍŽEK, Š. HOUDKOVÁ	69
EFFICIENCY OF REINFORCEMENT MATERIALS ON BUS FRAME STABILITY	71
V. YANOVYCH, J. VÁCLAVÍK.....	71
INDEX OF AUTHORS	75