



## Conference Schedule

### HUMANITIES SCIENCES SESSION

#### On-line Presentations

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|---|---------------|--|
|   | 09:50 – 10:00 | <b>Opening of the Conference and discussing technical matters</b>  |
| 1 | 10:00 – 10:10 | <b>Polycap Mudoh</b> ( <i>University of Szczecin</i> )<br>EUROPEAN UNION AS A MODEL FOR INTEGRATIONAL ARRANGEMENTS IN AFRICA – CENTRAL AFRICAN ECONOMIC AND MONETARY COMMUNITY AS A CASE STUDY (ENG) |
| 2 | 10:10 – 10:20 | <b>Monika Papiewska</b> ( <i>Radom Academy of Economics</i> )<br>A CLIMATE FOR CREATIVITY AT THE WORK  |
| 3 | 10:20 – 10:30 | <b>Tomasz Papiewski</b> ( <i>Radom Academy of Economics</i> )<br>THE IMPACT OF STRESSORS AND SUPPORT IN THE WORKPLACE<br>ON THE OCCURRENCE OF THE OCCUPATIONAL BURNOUT SYNDROME                      |
| 4 | 10:30 – 10:40 | <b>Kacper Plantowski</b> ( <i>University of Lodz, Branch in Tomaszów Mazowiecki</i> )<br>THE ANALYSIS OF SOCIAL ATTITUDES TOWARDS MULTIFUNCTIONAL AND SUSTAINABLE FOREST MANAGEMENT                  |
| 5 | 10:40 – 10:50 | <b>Jacek Rutkowski</b> ( <i>University of Warsaw</i> )<br>THIERRY OF CHARTRES AND BOOK OF NATURE   |
| 6 | 10:50 – 11:00 | <b>Gabriela Zdraąg</b> ( <i>University of Lodz, Branch in Tomaszów Mazowiecki</i> )<br>HUNTING – A BLOODY HOBBY OR A WAY TO BALANCE THE ECOSYSTEM?<br>A SOCIOLOGICAL PERSPECTIVE                     |

#### Presentations

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| 1  | <b>Joanna Adamczyk</b> ( <i>Pontifical University of John Paul II in Kraków</i> )<br>MUSEUM OF STANISŁAW WYSPIAŃSKI IN KRAKÓW – THE PAST, PRESENT AND FUTURE (ENG)  |
| 2  | <b>Oliwia Augustyniak</b> ( <i>University of Lodz</i> )<br>LAW IN THE AGE OF MODERN TECHNOLOGIES  |
| 3  | <b>Daria Borzyszkowska</b> ( <i>University of Warmia and Mazury in Olsztyn</i> )<br>PRECISE GOAL AS THE KEY TO SUCCESS  |
| 4  | <b>Agata Czemerys</b> ( <i>Fryderyk Chopin University of Music; University of Warsaw</i> )<br>DECONSTRUCTING DONNA ANNA. WHAT QUEER STUDIES TELL US ABOUT THE OPERA?  |
| 5  | <b>Joanna Gawęda</b> ( <i>University of Nicolaus Copernicus in Toruń</i> )<br>PROPAGANDA ASPECTS OF THE SUPERHERO CHARACTER ON THE EXAMPLE OF CAPTAIN AMERICA   |
| 6  | <b>Dominika Janik-Lis</b> ( <i>The John Paul II Catholic University of Lublin</i> )<br>COGNITIVE ENHANCEMENT AND ITS ROLE IN COMPETENCE BUILDING COACHING   |
| 7  | <b>Ewa Majewska</b> ( <i>Maria Curie-Skłodowska University of Lublin</i> )<br>PLACE OF E-LEARNING IN MODERN TEACHING METHODS (ENG)  |
| 8  | <b>Michał Mrozek</b> ( <i>University of Szczecin</i> )<br>SOLD PRODUCTION OF INDUSTRY AND CONSTRUCTION IN THE VOIVODESHIPS OF THE EASTERN MACROREGION OF POLAND IN 2016-2018- THE SELECTED PROBLEMS (ENG)   |
| 9  | <b>Przemysław Pazder</b> ( <i>Pomeranian University in Słupsk</i> )<br>UNITED STATES OF AMERICA AND THE EUROPEAN UNION – MARSHALL PLAN, EUROPEAN UNION POLICY AND US POLICY, PROBLEMS IN EU-WASHINGTON RELATIONS (ENG)                                |
| 10 | <b>Przemysław Pazder</b> ( <i>Pomeranian University in Słupsk</i> )<br>OPERATION POLAND IN UKRAINE (ENG)  |
| 11 | <b>Kacper Pelczarski</b><br>THE OLDEST MUSICAL INSTRUMENTS  |
| 12 | <b>Marcin Rozmarynowski</b> ( <i>University of Gdansk</i> )<br>KNOWLEDGE OR WISDOM AS THE KEY TO SUCCESS? SCHOOL SOCIAL ENGINEERING AND THE INDOCTRINATION OF POLISH TEACHERS DURING THE STALINIST ERA (1948-1956) IN THE LIGHT OF TEACHERS' MEMORIES |



- 13 **Daniel Tabiś** (*University of Applied Sciences in Tarnow*)  
 THE DIPLOMATIC PROTOCOL IN THE REPUBLIC OF POLAND
- 14 **Jakub Wołyniec** (*Maria Curie-Skłodowska University of Lublin*)  
 BRITISH THINK TANKS AND THE UNITED KINGDOM'S SOFT POWER (ENG)

#### Posters

- 1 **Angelika Lenart** (*The John Paul II Catholic University of Lublin*)  
 POST-TRAUMATIC STRESS DISORDER IN CHILDREN
- 2 **Agata Niezabitowska** (*University of Wrocław*)  
 POLISH ADAPTATION AND VALIDATION OF THE MODIFIED REASONS FOR SMOKING SCALE
- 3 **Marta Rokosz** (*University of Wrocław*)  
 A POLISH ADAPTATION AND VALIDATION OF THE DISTRESS TOLERANCE SCALE
- 4 **Anna Zarzycka** (*The John Paul II Catholic University of Lublin*)  
 PROBATION IN THE PROCESS OF CONVICTS RESOCIALIZATIO
- 5 **Bartłomiej Pawlak** (*University of Lodz*)  
 STOCK MARKET PREDICTION USING MACHINE LEARNING (ENG)

### MEDICAL SCIENCES SESSION

#### On-line Presentations

- 1 11:10 – 11:20 **Gabriela Biat, Natalia Lis** (*State Higher School of Technology and Economics in Jarosław*)  
 THE IMPACT OF STRESS ON NURSING STUDENTS AND WAYS OF DEALING WITH IT
- 2 11:20 – 11:30 **Damian Dyńka** (*Siedlce University of Natural Sciences and Humanities*)  
 TURMERIC AS AN ESSENTIAL ELEMENT OF HUMAN NUTRITION
- 3 11:30 – 11:40 **Alicja Groszek** (*Medical University of Lublin*)  
 MIGRAINE AS ONE OF THE MAIN CAUSES OF DISABILITY AMONG YOUNG PEOPLE
- 4 11:40 – 11:50 **Edyta Janik** (*University of Lodz*)  
 IMPACT OF MYCOTOXINS IN FOOD ON HUMAN HEALTH (ENG)
- 5 11:50 – 12:00 **Katarzyna Kowalcze** (*Siedlce University of Natural Sciences and Humanities*)  
 PHYTOTHERAPY IN METABOLIC DISEASES
- 6 12:00 – 12:10 **Natalia Krzyżanowska** (*Medical University of Lublin*)  
 PATHOGENICITY OF BAYLISASCARIS PROCYONIS IN THE CONTEXT OF RACCOON  
 INTRODUCTION IN POLAND
- 7 12:10 – 12:20 **Filip Lebiedziński** (*Medical University of Gdańsk*)  
 EMOTIONS RELATED TO HEMATOPOETIC STEM CELL DONATION –  
 A RETROSPECTIVE SURVEY STUDY ON ACTUAL DONORS (ENG)
- 12:20 – 12:30 **Coffee Break**
- 8 12:30 – 12:40 **Izabela Malitka** (*Siedlce University of Natural Sciences and Humanities*)  
 INFLUENCE OF THE TYPE OF MEAT AND FAT QUALITY ON THE DEVELOPMENT  
 OF CARDIOVASCULAR DISEASES
- 9 12:40 – 12:50 **Anna Muzyczka, Patrycja Mściwujewska** (*State Higher School of Technology and  
 Economics Fr. Bronisław Malinowski in Jarosław*)  
 DEMOGRAPHIC CHANGES AS A CHALLENGE FOR THE HEALTH CARE SYSTEM
- 10 12:50 – 13:00 **Kacper Niewęglowski** (*Medical University of Lublin*)  
 THE IMPACT OF BEE POLLEN SUPPLEMENTATION ON THE ENDOTHELIAL NITRIC  
 OXIDE SYNTHASE (NOS3) RECEPTOR'S EXPRESSION IN THE LIVER IN WISTAR RATS
- 11 13:00 – 13:10 **Barbara Pelc, Aneta Makówka** (*State Higher School of Technology and Economics  
 Fr. Bronisław Malinowski in Jarosław*)  
 EXAMINING THE LEVEL OF KNOWLEDGE ON DEPRESSION AMONG STUDENTS  
 OF MEDICAL COURSES
- 12 13:10 – 13:20 **Bartosz Sobocki** (*International Research Agenda 3P: Medicine Laboratory*)  
 MACROPHAGES IN CARCINOGENESIS
- 13 13:20 – 13:30 **Lucyna Sochocka** (*University of Medical Sciences in Legnica*)  
 KNOWLEDGE AND ATTITUDES OF PARENTS TOWARDS ASPECTS RELATED  
 TO PREVENTIVE VACCINATIONS OF CHILDREN AND ADOLESCENTS UNDER THE AGE  
 OF 18



- 14 13:30 – 13:40 **Monika Sztandera-Tymoczek** (*Maria Curie-Skłodowska University of Lublin*)  
PHYTOPATHOGENIC FUNGI AS A POTENTIAL HUMAN HEALTH THREAT

### Presentations

- 1 **Tymon Bykowski** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
THE ROLE OF PHOSPHO-TAU217 PROTEIN IN DIAGNOSIS OF ALZHEIMER'S DISEASE
- 2 **Filip Dunajewski** (*Poznan University of Life Sciences*)  
FEVERFEW (TANACETUM PARTHENIUM) IN MIGRAINE PREVENTION (ENG)
- 3 **Piotr Dzikowski** (*Medical University of Lublin*)  
THE EFFICIENCY OF PATELLOFEMORAL PAIN SYNDROME TREATMENT WITH SYNVISIC IN PEDIATRIC PATIENTS – LITERATURE REVIEW
- 4 **Justyna Jandernal** (*Regional Specialist Hospital Dr. Władysław Biegański in Grudziądz*)  
TREATMENT OF HER2+ BREAST CANCER – THE CURRENT STATE OF KNOWLEDGE
- 5 **Dorian Jarek** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
ROLE OF MITOCHONDRIAL DYSFUNCTIONS IN DEVELOPMENT AND COURSE OF PARKINSON'S DISEASE
- 6 **Karolina Karaś** (*University of Rzeszów*)  
TAKING UP ACTIVE TOURISM AMONG STUDENTS OF RZESZÓW UNIVERSITIES
- 7 **Natalia Kazimierczak** (*Kaliska Academy named after President Stanisław Wojciechowski*)  
COMPLICATIONS OF ONCOLOGICAL TREATMENT IN ORTHODONTIC PRACTICE
- 8 **Anna Kolano** (*Medical University of Lublin*)  
ECTOPIC PREGNANCY OF THE RIGHT FALLOPIAN TUBE- CASE STUDY (ENG)
- 9 **Joanna Eugenia Kruszka** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
VASOVAGAL SYNCOPE – SYMPTOMS, MECHANISM, DIAGNOSIS
- 10 **Szymon Kufel** (*Regional Specialist Hospital Dr. Władysław Biegański in Grudziądz*)  
SEXUAL SATISFACTION AND LIFE SATISFACTION IN PEOPLE TREATED WITH ONCOLOGY
- 11 **Marianna Lis** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
PSILOCYBIN – THE IMPACT ON ADDICTION TO SMOKING
- 12 **Jan Milanowski** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
PRO-INFLAMMATORY CYTOKINES IN THE PATHOGENESIS OF ALZHEIMER'S DISEASE
- 13 **Paweł Myśliborski-Wołowski** (*Regional Specialist Hospital in Grudziądz*)  
SIDE EFFECTS OF SELECTED CYTOTOXIC DRUGS
- 14 **Kacper Michał Naumowicz** (*VI High School – King Sigismund Augustus in Białystok*)  
QUERCETIN – AN ALLY IN THE FIGHT AGAINST CORONAVIRUS?
- 15 **Magda Orzolek** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
METABOLIC SYNDROME – CAN KNOWLEDGE PROTECT US FROM IT?
- 16 **Jacek Polechonski** (*Jerzy Kukuczka Academy of Physical Education*)  
PHYSICAL EFFORT WHILE WALKING ON A MULTI-DIRECTIONAL TREADMILL DESIGNED TO MOVE IN VIRTUAL REALITY IN RELATION TO WALKING IN THE FIELD (ENG)
- 17 **Janina Rzeszot**  
THROUGH THE EYES OF A PHYSIOTHERAPIST ON AN ONCOLOGICAL PATIENT
- 18 **Janina Rzeszot**  
CLINICAL PHYSIOTHERAPY – ITS ROLE IN IMPROVING THE PATIENT, IN RETURNING TO EVERY LIFE
- 19 **Ilona Samek** (*Medical University of Lublin*)  
IS IT REALLY A STONE? – LIMITED DIAGNOSTIC VALUE OF AN ABDOMINAL X-RAY IN THE DIAGNOSIS OF PATIENTS WITH RENAL COLIC
- 20 **Ilona Samek** (*Medical University of Lublin*)  
HOW HAS THE ASSESSMENT OF PHYSICIANS' COMPETENCES AND THE FUNCTIONING OF VISITS CHANGED DURING THE COVID-19 PANDEMIC?
- 21 **Zuzanna Siwka** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
SIDE EFFECTS OF STATINS USED TO TREAT CHOLESTEROL DISORDERS
- 22 **Lucyna Sochocka** (*University of Medical Sciences in Legnica*)  
ANALYSIS OF THE LEVEL OF KNOWLEDGE AND ATTITUDES OF THE NURSING STAFF WORKING IN AN INTENSIVE CARE UNIT TOWARDS MEDICAL FUTILITY
- 23 **Wiesław Zielonka** (*University of Medical Sciences in Legnica*)  
REMOTE TRANSMISSION AS EXEMPLIFIED BY THE EMERGENCY MEDICAL SERVICES IN LEGNICA



### Posters

- 1 **Kamil Janawa** (*Medical University in Szczecin*)  
 THE EFFECT OF MORPHINE DEPENDENCE ON THE EXPRESSION OF COX-1 AND COX-2 IN CHOSEN STRUCTURES OF RAT BRAINS EXPOSED TO LOW FLUORIDE CONCENTRATIONS
- 2 **Magdalena Kowalska** (*Ludwik Rydygier Collegium Medicum in Bydgoszcz*)  
 CALCULATING CHEMISTRY METHODS AS A SOURCE OF DATA ON TOXICITY OF POTENTIAL DRUGS
- 3 **Małgorzata Król** (*Pomeranian Medical University in Szczecin*)  
 STRETCHING AS AN ANTI-INFLAMMATORY FACTOR. THE EXPRESSION OF INFLAMMATORY MARKERS IN TISSUES SUBJECTED TO STRETCHING – A REVIEW (ENG)
- 4 **Anna Ornatowska** (*Lodz University of Technology*)  
 INNOVATIVE HYDROGEL – THE FUTURE OF ORTHOPEDICS AND TRANSPLANTOLOGY
- 5 **Karolina Żurawska** (*Pomeranian Medical University in Szczecin*)  
 PRE-EXPOSURE TO FLUORIDE AND THE MRNA EXPRESSION OF GFAP IN THE BRAINS OF MORPHINE – DEPENDENT RATS

## NATURAL AND TECHNICAL SCIENCES SESSION

### On-line Presentations

- 1 14:00 – 14:10 **Wioleta Banaszuk** (*Maria-Curie Skłodowska University of Lublin*)  
 HYPEROSMOTIC STRESS RESPONSE: THE ROLE OF NEUTRAL AMINO ACID TRANSPORTER SNAT2
- 2 14:10 – 14:20 **Konrad Brzyski** (*Silesian University of Technology*)  
 IMPROVEMENT OF THE MECHANICAL PROPERTIES OF PRESS-HARDENED 22MNB5 STEEL IN INDUSTRIAL CONDITIONS
- 3 14:20 – 14:30 **Cassandra Ceccopieri** (*Wrocław University of Environmental and Life Sciences*)  
 HEMATOXYLIN, EOSIN AND NATURAL SAFFRON (HES): A NEW HISTOLOGICAL STAINING METHOD (ENG)
- 4 14:30 – 14:40 **Wojciech Gogacz** (*University of Gdansk*)  
 SYNTHETIC ANTIMICROBIAL PEPTIDOMIMETICS BASED ON BINDING SITE OF CYSTATIN C – OPTIMIZATION OF SCALE-UP SYNTHESIS
- 5 14:40 – 14:50 **Justyna Kurcek** (*Rzeszow University of Technology*)  
 CHEMICAL PHOSPHORUS REMOVAL FROM WASTEWATER WITH USING PRE-HYDROLYZED COAGULANTS
- 6 14:50 – 15:00 **Anna Litwin** (*University of Lodz*)  
 COMPARISON OF PESTICIDES EFFECT ON THREE ENTOMOPATHOGENIC FUNGAL STRAINS OF THE GENUS ISARIA (ENG)
- 7 15:00 – 15:10 **Anna Litwin** (*University of Lodz*)  
 THE INFLUENCE OF HEAVY METALS ON ENTOMOPATHOGENIC FUNGI (ENG)
- 15:10 – 15:20 **Coffee Break**
- 8 15:20 – 15:30 **Amanda Leda** (*Poznań University of Technology*)  
 OPTIMIZATION OF WORKING CONDITIONS OF THE SECOND GENERATION BIOSENSOR DUE TO THE SELECTION OF AN APPROPRIATE MEDIATOR
- 9 15:30 – 15:40 **Paulina Machała** (*University of Lodz*)  
 ROLE OF GREEN COFFEE BEAN EXTRACT IN SKIN FIBROBLASTS RESPONSE TO UVA RADIATION
- 10 15:40 – 15:50 **Krzysztof Matuszek** (*Lodz University of Technology*)  
 A BRIEF HISTORY OF DEVELOPMENT OF BULK HETEROJUNCTION ORGANIC SOLAR CELLS (BHJ-OSCS) (ENG)
- 11 15:50 – 16:00 **Jakub Michańków** (*Cracow University of Economics*)  
 MODELLING UNIVARIATE TIME SERIES WITH ONE-DIMENSIONAL CONVOLUTIONAL NETWORKS
- 12 16:00 – 16:10 **Oskar Ronda** (*Gdańsk University of Technology*)  
 ACCUMULATION OF RADIOISOTOPES IN SOME SPECIES OF POLISH MUSHROOMS



- 13 16:10 – 16:20 **Joanna Skonieczna-Kurpiel** (*Wrocław University of Environmental and Life Sciences*)  
 THE STENT IMPLANTATION INTO THE LUMEN OF URETHRA AT NEW ZEALAND WHITE RABBIT
- 14 16:20 – 16:30 **Anna Szymczyk** (*Warsaw University of Technology*)  
 MODIFICATIONS OF MAGNETIC NANOPARTICLES SUITABLE FOR NUCLEIC ACIDS EXTRACTION (ENG)
- 16:30 **End of the Conference**

### Presentations

- 1 **Paweł Błaszczak** (*Lodz University of Technology*)  
 MODERN INDUSTRIAL ROBOTS
- 2 **Alicja Bosacka** (*Maria Curie-Skłodowska University of Lublin*)  
 KINETIC STUDIES OF HYBRID POLYMER MATERIALS (ENG)
- 3 **Gabriela Ciuńczyk** (*VI High School – King Sigismund Augustus in Białystok*)  
 THE EFFECT OF THE ELLAGIC ACID UPON THE ELECTROKINETIC POTENTIAL OF THE PHOSPHATIDYLCHOLINE MEMBRANES
- 4 **Kamil Dędek** (*Lodz University of Technology*)  
 INFLUENCE OF THE MICROENCAPSULATION METHOD POTATO STARCH FERULATES ON THEIR PHYSICOCHEMICAL PROPERTIES
- 5 **Aleksandra Drownowska** (*Białystok University of Technology*)  
 TECHNICAL CONDITION OF A RESIDENTIAL BUILDING AND ITS ENERGY EFFICIENCY
- 6 **Milena Kaczmarska** (*Lodz University of Technology*)  
 ANTIOXIDANT POTENTIAL OF INCLUSION COMPLEXES OF SELECTED POLYPHENOLS WITH 2-HYDROXYPROPYL-B-CYCLODEXTRIN
- 7 **Natalia Kielich** (*Adam Mickiewicz University in Poznan*)  
 POTENTIAL APPLICATION OF CHLOROPLAST UBIQUITIN LIGASES E3 IN ABIOTIC STRESS TOLERANT PLANT BREEDING
- 8 **Paulina Leśniak** (*University of Life Sciences in Lublin*)  
 ICHTHYOFTIRIOSIS IN FISH – SYMPTOMS, DIAGNOSIS AND TREATMENT (ENG)
- 9 **Paulina Leśniak** (*University of Life Sciences in Lublin*)  
 CANNABIS SATIVA – PROPERTIES AND APPLICATION (ENG)
- 10 **Julia Mironenka** (*University of Lodz*)  
 CHANGES IN TRICHODERMA HARZIANUM CELL MEMBRANE AS RESPONSE TO TOXICITY OF THE HERBICIDE 2,4-D (ENG)
- 11 **Jakub Osypiuk** (*University of Warmia and Mazury*)  
 ASSESSMENT AND COMPARISON OF VARIOUS ASPECTS OF CAT NUTRITION IN POLAND
- 12 **Joanna Pypec** (*University of Life Sciences in Lublin*)  
 COMPOSITION OF THE RHOPALOCERA BUTTERFLY FAUNA OF THE URSYNOWSKA SLOPE AND THE CHARACTER OF SPECIES CHANGES OVER THE YEARS
- 13 **Daniel Radzikowski** (*Warsaw University of Life Sciences*)  
 POSSIBILITIES OF USING NANOPARTICLES TO TREAT MASTITIS IN DAIRY COWS (ENG)
- 14 **Daniel Radzikowski** (*Warsaw University of Life Sciences*)  
 THE EFFECT OF VITAMINS AND MINERALS ON THE HEALTH OF DAIRY COWS (ENG)
- 15 **Julia Sadowska** (*University of Life Science in Lublin*)  
 MADE-TO-MEASURE POLLINATOR – HOW TO CHOOSE THE PERFECT INSECT FOR YOUR ENVIRONMENT (ENG)
- 16 **Julia Sadowska** (*University of Life Science in Lublin*)  
 INSECT FOR SPECIAL TASKS – THE INCREDIBLE BIOLOGY OF BUMBLEBEES (ENG)
- 17 **Paweł Solarczyk** (*Warsaw University of Life Sciences*)  
 THE LEVEL OF THE HEALTH-PROMOTING QUALITY OF SEMIMEMBRANOSUS MUSCLE IN PUREBRED AND CROSSBRED BULLS (ENG)
- 18 **Paweł Solarczyk** (*Warsaw University of Life Sciences*)  
 BEEF CATTLE BREEDING IN POLAND (ENG)



- 19 **Julia Wojnicka** (*Maria Curie-Skłodowska University of Lublin*)  
INFLUENCE OF ENVIRONMENTAL FACTORS ON EXOPOLYSACCHARIDE SYNTHESIS IN RHIZOBIUM  
LEGUMINOSARUM BV. TRIFOLII (ENG)

#### Posters

- 1 **Agata Baran** (*Military University of Technology*)  
MAGNESIUM – BASED HYDRIDES FOR HYDROGEN STORAGE (ENG)
- 2 **Anna Fenyk** (*University of Lodz*)  
CURRENT PROGRESS IN RESEARCH ON MODERN FUNCTIONAL MATERIALS –  
MAGNETORHEOLOGICAL FLUIDS AND ELASTOMERS
- 3 **Magdalena Głąb** (*Cracow University of Technology*)  
MODIFIED PROTEIN HYDROGELS DESIGNED FOR BIOMEDICAL APPLICATIONS (ENG)
- 4 **Paweł Janusiak** (*Poznan University of Technology*)  
PARACHUTE GEOMETRY OPTIMIZATION METHOD WITH REGARD TO STRESS DISTRIBUTION  
IN THE CANOPY MATERIAL
- 5 **Jakub Józiewicz** (*Lodz University of Technology*)  
APPLICATIONS OF NANOTECHNOLOGY IN COMPUTER COOLING
- 6 **Wiktoria Kozłowska** (*Poznan University of Technology*)  
TECHNOLOGY OF OBTAINING HYBRID ROCKET FUELS BASED ON PARAFFIN AND POLYETHYLENE  
USING A THERMOSTATIC CHAMBER
- 7 **Tomasz Krakowski** (*Poznan University of Technology*)  
TELEMETRY SYSTEM FOR SOUNDING ROCKET – DATA PACKAGE FORMULATION AND USAGE  
OF GSM FOR ENHANCE SYSTEM PERFORMANCE
- 8 **Beata Madras-Majewska** (*Warsaw University of Life Sciences*)  
EX-SITU PROTECTION IN ZOOS
- 9 **Karolina Pietrucha** (*Lodz University of Technology*)  
HOW TO LEAD A POLYMER FOR A WALK?
- 10 **Dagmara Słota** (*Cracow University of Technology*)  
ANTIBIOTIC MODIFIED HYDROXYAPATITE FOR REGENERATIVE MEDICINE AND IMPLANTOLOGY (ENG)
- 11 **Wiktor Tasarek** (*Science Club of Aviation and Cosmic Technology - PUT Rocket Lab*)  
TRACKING SYSTEM FOR RESEARCH ROCKETS USING MODULATION TECHNIQUE WITH CHIRP  
SPREAD SPECTRUM – LORA