

# CONTENTS

## APPLIED GEOMETRY, ENGINEERING GRAPHICS AND ERGONOMICS

**Berdynskykh S.O.**

BINOCULARITY AND ANIMATION AS A MEANS OF MODELING  
THE SPATIAL PROPERTIES OF PROJECTED OBJECTS .....1

## MACHINE SCIENCE

**Lytvyn O.O.**

INVESTIGATION OF THE PROCESS OF DOUBLE-SIDED GRINDING  
OF TORCHES OF PUSHERS WITH DIFFERENT DIAMETERS .....7

## AIRCRAFT AND AEROSPACE TECHNIQUES

**Azarov I.S., Sydorenko V.L., Zadunai O.S.**

PERSPECTIVES OF USE OF UNBEILED FLYING MACHINES FOR CONDUCTING  
THE ELIMINATION OF THE CONSEQUENCES OF EMERGENCY SITUATIONS .....11

## SHIPBUILDING

**Garbuz S.K., Titov S.D.**

THE MECHANISM OF MANAGING THE VALUES OF STAKEHOLDERS  
IN THE PROJECTS OF THE FORMATION OF A NEW BRANCH SPECIALIZATION .....17

## ELECTRICAL ENGINEERING

**Tereshchenko T.O., Yamnenko Yu.S., Kuzin D.V., Klepach L.He.**

FORMATION OF OUTPUT VOLTAGE OF A MULTI-LEVEL  
CASCADE INVERTER WITH USE OF FUNCTIONS IN THE GALOU FIELDS .....21

## RADIO ENGINEERING AND TELECOMMUNICATIONS

**Baranovskyi D.M., Yakubovska S.V., Zlepko O.S., Pavlov V.S.,**

**Chernyshova T.A., Kryvoruchko I.O.**

MODERN MEANS AND DEVICES FOR TELEMONITORING OF VITAL SIGNS  
OF THE PERSON: CONDITION OF A PROBLEM.....27

**Yefimenko A.A., Karlanhach O.P., Skonechnyi V.V.**

DESIGN OF ELECTRONIC MODULES WITH A FLEXIBLE STRUCTURE OF PCB.....32

**Mykhailova A.V., Chumachenko S.M.**

INFORMATION AND TELECOMMUNICATION TECHNOLOGIES  
AS A PART OF SAFETY IN THE SPHERE OF CIVIL DEFENCE .....40

**Saiko V.H., Narytnyk T.M.**

THZ BAND WIRELESS ACCESS CHANNEL FOR 5G WIRELESS SYSTEMS .....45

**Semenov A.O.**

RESEARCH OF THE DETERMINISTIC CHAOS OSCILLATOR BASED  
ON A BIPOLAR TRANSISTOR STRUCTURE WITH NEGATIVE RESISTANCE .....50

**Tsyurulnyk S.M., Tkachuk V.M., Roptanov V.I.**

THE TECHNIQUE OF APPLYING LOGIC ANALYZER  
TO STUDY THE INTERFACES OF INFORMATION-MEASURING SYSTEMS.....58

## **INFORMATICS, COMPUTER ENGINEERING AND AUTOMATION**

**Antypchuk B.O.**

IS IT ADVISABLE TO USE AN ULTRASONIC METHOD IN WORK OF THE  
AUTOMATED SYSTEM OF DEFINITION OF THE DEPTH OF THE CONDENSED  
LAYER OF SOIL? .....64

**Babakov R.M.**

SYNTHESIS OF THE MICROPROGRAM FINITE STATE MACHINE  
WITH DATAPATH OF TRANSITIONS WITH THE METHOD OF EXHAUSTIVE SEARCH .....70

**Baklan I.V., Vasilenko V.G., Shyrii V.V.**

SYSTEM ANALYSIS OF ABSTRACT DATA TYPES  
IN PROBABILISTIC PROGRAMMING LANGUAGES .....75

**Biloshytska O.K.**

ANALYSIS AND ASSESSMENT OF NON-LINEAR CHARACTERISTICS  
OF EPILEPTIC EEG SIGNALS .....80

**Viecherkovska A.S., Popereshniak S.V.**

CONSTRUCTION FEATURES OF AUTOMATED FILTERING  
ELEMENTS MANUFACTURE SYSTEM .....86

**Vitiuk A.Ie., Kornaha Ya.I., Barabash A.O.**

GRASPING OF NOVEL OBJECTS BY MOBILE ROBOT  
USING VISUAL PROCESSING .....93

**Voievodin Ye.V., Avramenko V.S.**

COMPARING EFFICIENCY OF DIFFERENT SELF-ORGANIZING  
KOHONEN MAP TOPOLOGIES IN VIRTUAL CONTAINERS  
ORCHESTRATION SYSTEMS .....99

**Voitovych O.P., Dudatiev A.V., Holovenko V.O.**

MODELS AND INSTRUMENT FOR DETECTION  
OF FAKE ACCOUNTS IN SOCIAL NETWORKS .....106

**Haidukevych S.V., Semenova N.P.**

FEATURES OF MODERNIZATION OF EDUCATIONAL LABORATORIES .....114

**Hnatovskaia A.A., Meshcheriakov D.V., Cherepanova E.V.**

TAKING A DECISION IN THE SYSTEM WITH BIOLOGICAL FEEDBACK .....119

**Hovorushchenko T.O., Bodnar M.A., Stasenko A.S.**

IDENTIFYING THE EFFECT OF CODESTYLE CHARACTERISTICS  
ON SOFTWARE QUALITY CHARACTERISTICS .....125

**Hrushko S.S.**

CLASSIFICATION OF COMBINED FSM STRUCTURES  
FOR REALIZATION ON FPGA .....131

**Davydchenko D.V., Behlov K.V., Chmelev E.Y.**

RESEARCH OF THE CASCADE AUTOMATIC CONTROL SYSTEM  
OF THE NUCLEAR POWER PLANT POWER .....137

**Yevsieiev V.V.**

VISUAL COMPONENTS FORMAL DESCRIPTION DEVELOPMENT  
FOR THE AUTOMATED DESIGN OF SOFTWARE PRODUCTS AND MODULES  
FOR COMPUTER-INTEGRATED PRODUCTION TECHNOLOGICAL  
PREPARATION SYSTEMS .....143

<b>Kalinovsky Ya.A., Boiarinova Yu.E.</b> CONSTRUCTION OF EFFECTIVE ALGORITHMS FOR SOLVING SYSTEMS OF ISOMORPHISM EQUATIONS FOR HYPERCOMPLEX NUMBER SYSTEMS USING EXPONENTIAL REPRESENTATION .....	148
<b>Kuvaeva V.Y., Boltenev V.A., Pozniak A.V.</b> PRE-PROCESSING OF EXPERT INFORMATION IN AGGREGATED CONSENSUS RANKING FORMATION.....	155
<b>Kuzma K.T.</b> ANALYSIS OF THE METHODS OF VERIFICATION THE ANSWER IN TESTING SYSTEMS, SUBMITTED IN A TEXT FORM .....	163
<b>Kupyn A.Y., Muzyka Y.O., Senko A.A., Kovalenko K.A., Mysko B.S.</b> THE GENERALIZED STRUCTURE OF THE PREDICTING AUTOMATIC CONTROL SYSTEM ORE BENEFICATION FOR STABILIZATION OF MINING COMPLEX QUALITY INDICATORS .....	168
<b>Lobov V.I., Lobova K.V., Mahdych B.V.</b> TASK OF THE AUTOMATION SYSTEM CREATION FOR VERIFICATION STUDENT WORKS FOR PLAGIARISM FOR A GIVEN SUBJECT AREA .....	174
<b>Mahdych B.V.</b> TASK OF THE AUTOMATION SYSTEM CREATION FOR VERIFICATION STUDENT WORKS FOR PLAGIARISM FOR A GIVEN SUBJECT AREA .....	180
<b>Medushevskiy S.V.</b> DEVELOPMENT OF METHODOLOGY AND PRINCIPLES FOR THE COMPLEX FORMATION AND QUALITY EVALUATION OF THE VALIDATION DOCUMENTATION PACKAGE OF AN AUTOMATED INFORMATION SYSTEM .....	185
<b>Mnatsakanian V.H., Mnatsakanian M.S.</b> ECOLOGICAL SAFETY OF TRANSPORT SYSTEMS OF THE INDUSTRIAL CENTER BASED ON THE METHODS OF IMITATION MODELING .....	191
<b>Nevliudov I.Sh., Khrustalov K.L., Funkendorf A.O.</b> MATHEMATICAL MODEL OF ROBOTS WITH MODULAR TYPE CONSTRUCTION COMPOSITION TECHNOLOGICAL PROCESS .....	197
<b>Nevliudov I.Sh., Ponomarova H.V., Bortnikova V.O.</b> MEM ACCELEROMETERS PRODUCTION TECHNOLOGICAL PROCESS SIMULATION .....	204