

CONTENTS

MACHINE SCIENCE

Polishchuk M.N.

| | |
|--|---|
| THEORETICAL SUBSTANTIATION OF FUNCTIONING ANTIGRAVITATIONAL MOBILE ROBOT..... | 1 |
|--|---|

MATERIAL PROCESSING IN MECHANICAL ENGINEERING

Kolohoida A.V.

| | |
|---|----|
| INVESTIGATION OF PROCESS OF TEXTILE SPIKED ROLLER AND STRIPPING CYLINDER | 10 |
|---|----|

INDUSTRIAL ENGINEERING

Ieremenko O.I., Zubok T.O.

| | |
|---|----|
| SCIENTIFIC AND TECHNICAL ASPECTS OF GRANULATION OF ENERGETIC WILLOW TREE..... | 16 |
|---|----|

Kuzhelnyi Ya.V.

| | |
|---|----|
| ANALYSIS OF THE CUTTING PROCESS RESEARCH METHODS WITH A SINGLE ABRASIVE GRAIN DURING GRINDING..... | 23 |
|---|----|

AIRCRAFT AND AEROSPACE TECHNIQUES

Skyrda I.I.

| | |
|--|----|
| THE BEHAVIOR-BASED APPROACH FOR REMOTELY PILOTED AIRCRAFT SWARM CONTROL IN DYNAMIC ENVIRONMENT..... | 28 |
|--|----|

ELECTRICAL ENGINEERING

Kimstach O.Yu.

| | |
|--|----|
| IDENTIFICATION OF PARAMETERS OF THE IMPROVED MATHEMATICAL MODEL OF THE INDUCTION MOTOR..... | 34 |
|--|----|

Kyryk V.V.

| | |
|---|----|
| GENETIC METHOD FOR OPTIMAL RECONFIGURATION OF THE POWER DISTRIBUTION NETWORKS..... | 40 |
|---|----|

EQUIPMENT

Yegorov A.D., Yegorov V.A., Yegorov S.A., Synelnikov I.Ye.

| | |
|--|----|
| IMPROVED METHODS OF DATA PROCESSING IN OPTICAL SPECTROMETERS | 46 |
|--|----|

Itsenko A.I., Shevchenko A.I., Bohdan H.A.

| | |
|---|----|
| CONTROL OF HOMOGENEITY OF DISTRIBUTION OF DURABILITY DESCRIPTIONS IN MATERIALS FROM NITRIDE OF ALUMINIUM ON RESULTS OF ACOUSTIC MEASURING | 51 |
|---|----|

Tsokota M.V.

| | |
|---|----|
| PHOTOREGENERATION OF CHRONIC RAS WITH LOW INTENSITY RADIATION..... | 56 |
|---|----|

RADIO ENGINEERING AND TELECOMMUNICATIONS

Buhaiov M.V.

| | |
|---|----|
| TIME-FREQUENCY MATRIX METHOD OF FREQUENCY HOPPING SIGNALS DETECTION IN SOPHISTICATED SIGNAL ENVIRONMENT..... | 61 |
|---|----|

INFORMATICS, COMPUTER ENGINEERING AND AUTOMATION

Bulhakova I.V.

TECHNOLOGY AND METHODS OF DEVELOPMENT OF 3D-TOURS
OF SOCIAL OBJECTS OF BAKHMUT66

Gerasin O.S., Kozlov O.V., Kondratenko Yu.P., Skakodub O.S.

MATHEMATICAL MODELING OF MULTIPURPOSE CATERPILLAR MOBILE ROBOT
FOR VERTICAL MOVEMENT70

Hovorushchenko T.O., Medzaty D.M., Bodnar M.A.

COMPENSATORY MODEL OF SOFTWARE QUALITY BASED ON SQUARE MODEL.....80

Grygorchuk G.V., Oliynyk A.P., Grygorchuk L.I.

THE RESEARCH OF THE MODEL DEFORMATION PROCESS OF ROTATING OBJECTS..... 86

Dobarina O.V., Beglov K.V.

AUTOMATIC POWER CONTROL SYSTEM OF NPP POWER UNIT.....91

Dudatyev A.V., Voitovych O.P., Myronjuk V.V.

THE THREAT MODEL OF SOCIO-TECHNICAL SYSTEM: SOCIAL ASPECT97

Zlepko S.M., Timchik S.V., Kryvoruchko I.O., Palamarchuk M.I.

SELECTION OF INFORMATIONAL PHYSIOLOGICAL PARAMETERS FOR EVALUATION
OF THE FUNCTIONAL STATE OF OPERATORS: ANALYSIS OF THE SITUATION.....102

Irodov V.F., Shaptala D.Ye.

MATHEMATICAL MODELING OF A TUBULAR GAS HEATER LOCATED
IN A HORIZONTAL CHANNEL.....107

Lazurchak L.V., Vdovychyn T.Ya., Zhydyk V.B.

POSSIBILITIES OF THE INTEGRATED ENVIRONMENTAL RAD STUDIO
FOR USE OF USEFUL PROJECTS111

Loshak K.R., Lozhechnikov V.F.

DEVELOPMENT AND RESEARCH OF AN AUTOMATED CONTROL SYSTEM FOR
A CHEMICAL MIXING TANK.....116

Martynyuk E.A., Beglov K.V.

RESEARCH OF IMPACT OF NONLINEAR CONTROL VALVE ON THE QUALITY
OF TRANSIENT REGULATION PROCESSES IN HEATER OF HP.122

Nikulin D.S., Lozhechnikov V.F.

AUTOMATIC SYSTEM FOR REGULATING THE PERFORMANCE OF THE TURBINE
DRIVEN PUMPS OF AN NPP POWER UNIT WITH A WWER-1000 REACTOR.....126

Orlov O.I.

STUDIES OF COMPUTER-INTEGRATED AIR FLOW MANAGEMENT SYSTEM
WITH THE DEVELOPMENT OF A TRAINING STAND131

Povkhan I.F.

THE PROBLEM OF APPROXIMATING A SAMPLE OF DISCRETE SETS
BY GEOMETRIC OBJECTS136

Polushkin E.N., Lysyuk H.P.

THE AUTOMATIC SYSTEM OF ADJUSTING OF PRESSURE IN A DEAERATOR.....142

Prykhodko N.V., Makarova L.M., Kudin O.O.

NON-LINEAR REGRESSION MODEL FOR ESTIMATING THE EFFORT
OF WORKS IN SHIPBUILDING PROJECTS BASED ON THE JONSON
BIVARIATE NORMALIZING TRANSFORMATION148

| | |
|--|-----|
| Romanyuk O.N., Abramchuk I.V., Kirilashchuk S.A., Romanyuk S.O. MODELING OF A SPECULAR COMPOSITE COLOR BY USING ENERGY-CORRECT MODELS OF REFLECTIVE SURFACTIVENESS PROPERTIES | 153 |
| Sychylo A.A., Beglov K.V., Lysyuk H.P. THE STUDYING OF THE AUTOMATED SYSTEM OF THE OUTPUT REGULATION OF THE POWER UNIT OF THE NPP IN THE “T” MODE..... | 158 |
| Tereshchenko D.O. AUTOMATIC CONTROL SYSTEM OF THE GAS-AIR TRACT OF DRUM-TYPE BOILER..... | 164 |
| Terletsy V.A., Lysyuk H.P. SIMULATION ASR OF THE TEMPERATURE OF THE STEAM AFTER THE REDUCTION COOLING INSTALLATION OF THE POWER UNIT NNP OF THE WWER 1000 MW | 170 |
| Ulitskaya E.O., Lysyuk H.P., Kostyukova O.N. THE COMPUTER INTEGRATED CONTROL SYSTEM OF WATER LEVEL WITH DEVELOPMENT OF THE EDUCATIONAL STAND..... | 175 |
| Ulitskaya E.O., Shyrokov A.M. RELAY REGULATOR SETTINGS ON THE EXAMPLE OF NPP PRESSURE COMPENSATOR: PC SIMULATION MODEL | 180 |
| Furtat I.E., Furtat Yu.O. METHOD OF INCREASING AUTOMATED SYSTEMS’ RELIABILITY AND EFFICIENCY USING ADAPTIVE USER INTERFACES AND DOMAIN MODELS BASED ON THE USERS’ COGNITIVE CHARACTERISTICS AND WORK PROCESS’ SPECIFICS..... | 185 |
| Chernetchenko D.V. A NOVEL METHOD OF PREPROCESSING AND SPIKE ENCODING OF ELECTROCARDIOGRAPHIC SIGNAL FOR MULTI-STABLE SPIKING NEURONAL NETWORKS APPLICATION..... | 191 |
| Chornofostova K.V. Lysyuk H.P. INCREASING THE QUALITY OF REGULATION OF THE LEVEL IN THE BATTERY OF THE DEAERATOR OF NUCLEAR POWER PLANT WITH WWER-1000..... | 200 |
| Shadura O.V. PERFORMANCE OPTIMIZATION OF THE PHYSICS SIMULATION PACKAGE GEANTV BY THE USE OF THE GENETIC ALGORITHMS | 206 |
| Yaremenko V.S., Tarasenko M.V. COMPARATIVE ANALYSIS OF SOFTWARE LIBRARIES FOR THE CLASSIFICATION OF TEXT DATA USING ARTIFICIAL NEURAL NETWORKS | 214 |