

IX International Scientific Practical Conference on Innovative Technologies in Engineering 2018

Journal of Physics: Conference Series
Volume 1059

Yurga, Russia
24 – 26 May 2018

ISBN: 978-1-5108-6794-9
ISSN: 1742-6588

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2018) by the Institute of Physics
All rights reserved. The material featured in this book is subject to
IOP copyright protection, unless otherwise indicated.

Printed by Curran Associates, Inc. (2018)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of contents

Volume 1059

IX International Scientific Practical Conference "Innovative Technologies in Engineering"

24–26 May 2018, Yurga, Russian Federation

Accepted papers received: 5 July 2018

Published online: 19 July 2018

Preface

[IX International Scientific Practical Conference "Innovative Technologies in Engineering"](#)

[Peer review statement](#)

Papers

[Determination of the Extent of Fraction in Air Separation of Grain Material](#)

V V Piven.....1

[Innovative Industrial Displays with Enhanced Gamut of a Colorful Image of Three Components](#)

I O Zharinov and O O Zharinov.....8

[Information System of Machines and Tractors Fleet Technical Service](#)

G V Redreev, A A Luchinovich, E I Ustiyantsev and A S Laskin.....13

[Developing the information system "Test Solver" applied for a Programming Contest](#)

A Lenkin, D Luchaninov, R Bazhenov and V Glagolev.....21

[Theoretical substantiation of machine-tractor fleet technical maintenance system on the example of Omsk region agricultural enterprises](#)

O V Myalo, V V Myalo, S P Prokopov, A P Solomkin and A S Soynov.....28

[Operating modes and electrothermal model of an induction crucible furnace with a conductive crucible](#)

M A Fedin, A B Kuvaldin, A O Kuleshov, S V Akhmetyanov and I V Korolev.....35

[Multi-criteria analysis of the coatings quality obtained by cladding with a flexible tool](#)

A V Zotov and D A Rastorguev.....43

[Perfection of Technical Service of Manufacturing Plants Equipment](#)

G V Redreev, A V Shimokhin and P V Kiyko.....51

[Two-Cotton Sowing Sundry of Grain Crops with Different Mineral Fertilizer Level](#)

E V Demchuk, U K Sabiev, V V Mylo, A S Soyunov and V S Koval.....59

[The ontology in description of production processes in the Industry 4.0 item designing company](#)

A V Gurjanov, D A Zakoldaev, A V Shukalov and I O Zharinov.....66

[Scarification of Seeds as an Increasing Element of Perennial Legume Grasses Productivity](#)

A P Shevchenko, A V Bankrutenko, V S Koval, M A Begunov and E V Demchuk.....70

[Technology of Antierosive Soil Surface Deriving](#)

N A Zaripova, A S Soyunov, S P Prokopov, A Yu Golovin and R K Abdylmanova.....78

[Creation of the Information System Based on Experimental Data for Control of the MMF Operating Modes to Improve the Efficiency of Ventilation in Mines](#)

G B Lyalkina, A V Nikolaev and N S Makarychev.....86

[Fuzzy Logic Models for Detection of Critical Processes in Manufacturing](#)

Pavel Moor, Igor Gluhih, Anton Moor and Svetlana Moor.....93

[Development of an Algorithm for Control Metallurgical Processes of Fluidized Roasting Using an Adaptive Controller](#)

I I Beloglazov, P A Petrov and D V Gorlenkov.....100

[Automatization of Transport Logistics Company](#)

G B Barskaia and T I Chalkova.....106

[Organization and Verification of Software Production Processes](#)

Mikhail Grigorev, Alexander Ivashko, Inna Grigoreva, Marina Vorobeva and Artem Vorobev.....112

[Software and Hardware Control Robotic Lawnmowers](#)

A V Proskokov, M V Momot, D N Nesteruk, E S Terentyev and A D Veretennikov.....119

[Processing of Experimental Data by Means of Nonparametric Statistics](#)

V Syzrantsev and K Syzrantseva.....128

[Development of the Device for Two-Strip Cladding with Controlled Mechanical Transfer](#)

Vitaliy Ivanov and Elena Lavrova.....135

The Method of Designing the Superstructure of the Car Body Based on the Requirements of Low-Speed Collisions

Vadim A Gulyaev, Nikolay Yu Loginov, Anton A Kozlov, Dmitry Yu Voronov and Denis G Levashkin.....140

Prediction of the Expected Wear Resistance of Soil-Cutting Elements by the Simulation Loading Method

V I Myalenko.....148

Case-Based Reasoning Approach for Automating Control of Gas-Compressor Unit Within Gas-Compressor Station

O N Kuzyakov, I N Gluhih and M A Andreeva.....153