Web of Science™
Page 1 (Records 1 -- 21)

◀ [1] ▶

Record 1 of 21

Title: Column generation approach for disassembly line balancing

Author(s): Duta, L (Duta, L.); Caciula, I (Caciula, I.); Patic, PC (Patic, P. C.)

Source: IFAC PAPERSONLINE **Volume:** 49 **Issue:** 12 **Pages:** 916-920 **DOI:** 10.1016/j.ifacol.2016.07.892 **Published:** 2016

Abstract: Disassembly line balancing is a multi-objective problem which was found out to be NP-complete. Its exponential time complexity limits its application to small size instances. To overcome this problem, a heuristic methodology composed of two-stages is proposed. In the first phase, a mixed integer linear model is formulated so as to integrate the disassembly task allocation constraints. In the second phase, a tree search algorithm is applied to find the optimal schedule that balances the disassembly line. Column generation benchmark results show a good performance of the algorithm for large size instances. (C) 2016, IFAC (International Federation of Automatic Control) Hosting by Elsevier Ltd. All right reserved.

Accession Number: WOS:000383468400157

Conference Title: 8th IFAC Conference on Manufacturing Modelling, Management and Control (MIM)

Conference Date: JUN 28-30, 2016

Conference Location: Troyes, FRANCE

Conference Sponsors: Int Federat Automat Control, Tech Comm 5 2 Mfg Modelling Management & Control, Int Federat Automat Control Tech Comm 1 3 Discrete Event & Hybrid Syst, Int Federat Automat Control Tech Comm 3 2 Computat Intelligence Control, Int Federat Automat Control Tech Comm 4 3 Robot, Int Federat Automat Control Tech Comm 5 1 Mfg Plant Control, Int Federat Automat Control Tech Comm 5 3 Enterprise Integrat & Networking, Int Federat Automat Control Tech Comm 5 4 Large Scale Complex Syst, Int Federat Automat Control Tech Comm 7 4 Transporat Syst, Int Federat Automat Control Tech Comm 9 1 Econ, Business, & Financial Syst, Inst Elect & Elect Engineers, France Sect, Int Federat Operat Res Soc, Int Ind Engineers, Int Federat Informat Proc, Inst Operat Res & Management Sci, Soc Modeling & Simulat Int, French Operat Res & Decis Aid Soc, Soc Electricite Electronique TIC, CNRS GdR MACS, CNRS GdR RO

ISSN: 2405-8963

Record 2 of 21

Title: Decision Support Systems in Reverse Supply Chain Management

Author(s): Filip, FG (Filip, Florin Gheorghe); Duta, L (Duta, Luminita)

Edited by: Luminita C; Constantin C; Valeriu IF

Source: 2ND INTERNATIONAL CONFERENCE ECONOMIC SCIENTIFIC RESEARCH - THEORETICAL, EMPIRICAL AND PRACTICAL APPROACHES, ESPERA 2014 **Book Series:** Procedia Economics and Finance **Volume:** 22 **Pages:** 154-159 **DOI:** 10.1016/S2212-5671(15)00249-X **Published:** 2015

Abstract: The paper aims at presenting the main issues concerning the Reverse Supply Chains (RSC) and the specific attributes of Decision Support Systems (DSS) meant to be used in the RSC management activities in line with the new Information and Communication Technologies (ICT). Having reviewed several main milestones of the way to the conscious environmental manufacturing systems, Reverse Supply Chain frameworks, architecture and activities are described. Initiatives and implementation solutions of Decision Support Systems for RSC in some European countries are also presented. In the final part, the role of pacing technologies to support green manufacturing development with main emphasis on issues such as agent technologies, cloud computing, big data and cyber physical systems is explained. (C) 2015 The Authors. Published by Elsevier B.V.

Accession Number: WOS:000358197900019

Conference Title: 2nd International Conference Economic Scientific Research - Theoretical, Empirical and Practical Approaches (ESPERA)

Conference Date: NOV 13-14, 2014

Conference Location: Bucharest, ROMANIA

Conference Sponsors: Romanian Acad Costin C Kiritescu Natl Inst Econ Res

ISSN: 2212-5671

Record 3 of 21

Title: Mathematical Decision Model for Reverse Supply Chains Inventory

Author(s): Duta, L (Duta, L.); Zamfirescu, CB (Zamfirescu, C. B.); Filip, FG (Filip, F. G.)

Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL **Volume:** 9 **Issue:** 6 **Pages:** 686-693 **Published:** DEC 2014

Abstract: In the reverse supply chain inventory theory, inventory models are concerned with the demand of reusable parts, stock replenishment, ordering cycle, delivery lead time, number of disassembled products, ordering costs. The particularity of these models consists in the occurrence of high uncertainties of the quantity and quality of the returned products and resulting parts. To overcome the problem, an inventory model that incorporates decision variables at proactive and reactive levels is derived and discussed in this paper.

Accession Number: WOS:000343688400003

ISSN: 1841-9836

eISSN: 1841-9844

Record 4 of 21

Title: Decision Analysis in Management of Information Systems Incidents

Author(s): Tchoffa, D (Tchoffa, D.); Duta, L (Duta, L.); El Mhamedi, A (El Mhamedi, A.)

Source: STUDIES IN INFORMATICS AND CONTROL **Volume:** 22 **Issue:** 2 **Pages:** 123-132 **Published:** JUN 2013

Abstract: Distributed systems are characterized by heterogeneity and also by multiple applications often interdependent whose programming is done by separate teams with no communications between them. Dysfunctions and problems that occur in these systems have multiple and important consequences. Difficulties encountered during discovering origins and causes of these problems are proportional with user information quality demand. In this paper a method to manage incidents in information systems using decision analysis is proposed.

Accession Number: WOS:000320427700002

ISSN: 1220-1766

Record 5 of 21

Title: Collaborative Platform for Virtual Practice Enterprise Learning

Author(s): Patic, PC (Patic, Paul Ciprian); Duta, L (Duta, Luminita); Popa, IF (Popa, Ion Florin)

Edited by: CamarinhaMatos LM; Scherer RJ

Source: COLLABORATIVE SYSTEMS FOR REINDUSTRIALIZATION **Book Series:** IFIP Advances in Information and Communication Technology **Volume:** 408 **Pages:** 287-294 **Published:** 2013

Abstract: Virtualizing structures, functions and operations of real companies, simulated enterprises provide a learning environment where learners acquire professional knowledge and practical skills. Collaborative networks for simulated enterprises allow participants performing management functions, virtual transaction or production simulations and developing entrepreneurial behaviors in a collaborative professional environment. This paper aims to present a functional collaborative environment for practice in virtual enterprises in which actors are students, universities and real companies.

Accession Number: WOS:000391134800031

Conference Title: 14th IFIP WG 5.5 Working Conference on Virtual Enterprises (PROVE-VE)

Conference Date: SEP 30-OCT 02, 2013

Conference Location: Dresden, GERMANY

Conference Sponsors: IFIP WG 5 5 Co Operat Infrastructure Virtual Enterprises & Electronic Business, Soc Collaborat Networks, Tech Univ Dresden, New Univ Lisbon, UNINOVA

ISSN: 1868-4238

ISBN: 978-3-642-40543-3; 978-3-642-40542-6

Record 6 of 21

Title: BAYESIAN NETWORK FOR DECISION AID IN MAINTENANCE

Author(s): Duta, L (Duta, Luminita)

Source: PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE **Volume:** 13 **Issue:** 4 **Pages:** 387-394 **Published:** OCT-DEC 2012

Abstract: This paper aims to deal with uncertainties occurring in preventive maintenance strategies. After analysing the corrective maintenance data, a decision model that integrates the most important maintenance indicators and their probability distributions is provided. A case study illustrating the proposed methodology that utilizes Bayesian Networks is presented in the final part of the paper.

Accession Number: WOS:000312118100013

ISSN: 1454-9069

Record 7 of 21

Title: Dynamic Bayesian Network for Decision Aided Disassembly Planning

Author(s): Duta, L (Duta, Luminita); Douche, SA (Douche, Sidali Ad)

Edited by: Borangiu T; Thomas A; Trentesaux D

Source: SERVICE ORIENTATION IN HOLONIC AND MULTI-AGENT MANUFACTURING CONTROL **Book Series:** Studies in Computational Intelligence **Volume:** 402 **Pages:** 143-+ **Published:** 2012

Abstract: Disassembly processes of used manufactured products are subject to uncertainties. The optimal disassembly level that minimizes the costs of these processes and maximizes the end of life components values is hard to establish. In this work, we propose a method to find influences and causalities between the main disassembly performance indicators in order to decide the optimal disassembly policy. The proposed model highlights the temporal dependencies between variables of the system and is validated using the Bayesia Lab software. In the final part of the chapter, the results of method implementation on a reference case study are presented in order to demonstrate the performance of our approach.

Accession Number: WOS:000309734000011

Conference Title: International Workshop on Service Orientation in Holonic and Multi-Agent Manufacturing Control (SOHOMA 2011)

Conference Date: JUN 20-21, 2011

Conference Location: Ecole Natl Superieure Arts & Metiers, Paris, FRANCE

Conference Host: Ecole Natl Superieure Arts & Metiers

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Borangiu, Theodor	G-2572-2016	

ISSN: 1860-949X

ISBN: 978-3-642-27448-0

Record 8 of 21

Title: Web Technologies and Multi-criteria Analysis Used in Enterprise Integration

Author(s): Cioca, M (Cioca, Marius); Cioca, LI (Cioca, Lucian-Ionel); Duta, L (Duta, Luminita)

Source: STUDIES IN INFORMATICS AND CONTROL **Volume:** 20 **Issue:** 2 **Pages:** 129-134 **Published:** JUN 2011

Abstract: The studies, research and solutions presented below started from the acute need of small and medium-sized enterprises to integrate their processes, services and relationships with customers and suppliers, in a cost-effective manner, given the fact that ERP systems are quite expensive for such organizations.

Accession Number: WOS:000292015600005

Author Identifiers:

Author	ResearcherID Number	ORCID Number
CIOCA, Lucian-Ionel	B-5517-2012	0000-0002-5467-9114
Duta, Luminita	H-3063-2012	
CIOCA, Marius	B-5633-2011	

ISSN: 1220-1766

Record 9 of 21

Title: On Investigating the Cognitive Complexity of Designing the Group Decision Process

Author(s): Zamfirescu, CB (Zamfirescu, Constantin-Bala); Duta, L (Duta, Luminita); Iantovics, B (Iantovics, Barna)

Source: STUDIES IN INFORMATICS AND CONTROL **Volume:** 19 **Issue:** 3 **Pages:** 263-270 **Published:** SEP 2010

Abstract: The paper investigates the cognitive complexity associated with the design of group decision processes (GDP) in relation with some basic contextual factors such us task complexity, users' creativity and problem space complexity. The analysis is done by conducting a socio-simulation experiment for an envisioned software tool that acts as collaborative environment for the GDP design. The simulation results provide some insights on how to engineer context-adaptable functionalities aiming at minimizing the cognitive complexity associated with the GDP design. Although the research is carried out for a specific case, namely the GDSS technology, the results may be easily replicated for any sort of collaborative working environment where the cognitive complexity associated with its effective use is playing an important role.

Accession Number: WOS:000282834300006

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

ISSN: 1220-1766

Record 10 of 21

Title: Recurrent Neural Networks in Linear Systems Controlling

Author(s): Patic, PC (Patic, P. C.); Zemouri, RM (Zemouri R., R. M.); Duta, L (Duta, L.)

Source: STUDIES IN INFORMATICS AND CONTROL **Volume:** 19 **Issue:** 2 **Pages:** 153-158 **Published:** JUN 2010

Abstract: This paper presents an application of an ANN (Artificial Neural Network) of a RNRF type (Recurrent Network with Radial basis Function) in controlling a linear system. The performance of ANN-based control solution is compared with a classic controller and the results show that ANN behaves better than the classic controller. MATLAB simulation performed show that the coupling between the ANN and a proportional controller gives the best performance.

Accession Number: WOS:000279310700005

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

ISSN: 1220-1766

Record 11 of 21

Title: Establishment of the conceptual solution in mobile robot guidance

Author(s): Patic, PC (Patic, Paul Ciprian); Pascale, L (Pascale, Lucia); Duta, L (Duta, Luminita)

Edited by: Mladenov V; Psarris K; Mastorakis N; Caballero A; Vachtsevanos G

Source: ADVANCES IN COMMUNICATIONS, COMPUTERS, SYSTEMS, CIRCUITS AND DEVICES **Book Series:** European Conference of Systems-Proceedings **Pages:** 63-+ **Published:** 2010

Abstract: In this work one proposed to achieve an autonomous mobile robot to simulate movement in an unknown environment, for example, to move inside of a maze. With specialized documentation and follow some practical examples, one made the prototype model robot, which is an application with a didactical and scientific goal for the some laboratories. Using hardware and software capabilities of the PIC16F877 microcontroller produced by Microchip, one realized the moving of the prototype robot and one can say that one can try to induce the desired movements.

Accession Number: WOS:000290650000011

Conference Title: European Conference of Systems/European Conference of Circuits Technology and Devices/European Conference of Communications/European Conference of Computer Science

Conference Date: NOV 30-DEC 02, 2010

Conference Location: Puerto De La Cruz, SPAIN

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	
Lucia, Pascale	C-6977-2015	

ISSN: 1792-6637
ISBN: 978-960-474-250-9

Record 12 of 21

Title: Implementing the "Design for Emergence" Principle in GDSS

Author(s): Zamfirescu, CB (Zamfirescu, Constantin-Bala); Duta, L (Duta, Luminita); Candea, C (Candea, Ciprian)

Edited by: Respicio A; Adam F; PhillipsWren G; Teixeira C; Telhada J

Source: BRIDGING THE SOCIO-TECHNICAL GAP IN DECISION SUPPORT SYSTEMS: CHALLENGES FOR THE NEXT DECADE **Book Series:** Frontiers in Artificial Intelligence and Applications **Volume:** 212 **Pages:** 61-72 **DOI:** 10.3233/978-1-60750-577-8-61 **Published:** 2010

Abstract: In the general context of Group Decision Support System (GDSS), the paper investigates the possibility to externalize and support, from a metacognitive perspective, the effective use of facilitation knowledge with self-development capabilities. The experimental results make evident that these capabilities may be easily engineered by adopting the basic principles of the design for emergence in constructing an e-meeting facilitation tool that act as a stigmergic collaborative environment for the participants. Basically, the GDSS needs to provide a minimal structure for modeling the group decision process (GDP) which enables a participant-driven approach to group facilitation and magnify the sense of social participation. In this way the GDSS may provide a collaborative environment where unpredictable and more effective models of GDP design will emerge through the exploration of the problem space.

Accession Number: WOS:000350051100006

Conference Title: 15th IFIP Working Group 8.3 International Conference on Decision Support Systems on Bridging the Socio-Technical Gap in DSS - Challenges for the Next Decade

Conference Date: JUL 07-10, 2010

Conference Location: Univ Lisbon, Fac Sci, Lisbon, PORTUGAL

Conference Sponsors: IFIP Working Grp 8 3

Conference Host: Univ Lisbon, Fac Sci

ISSN: 0922-6389
ISBN: 978-1-60750-577-8; 978-1-60750-576-1

Record 13 of 21

Title: Designing a roller-bearing assembly using theoretical and experimental methods

Author(s): Popa, IF (Popa, Ion Florin); Duta, L (Duta, Luminita); Patic, CP (Patic, Ciprian Paul)

Edited by: Martin O; Zheng X

Source: LATEST TRENDS ON ENGINEERING MECHANICS, STRUCTURES, ENGINEERING GEOLOGY **Book Series:** Mathematics and Computers in Science and Engineering **Pages:** 67-+ **Published:** 2010

Abstract: The scope of the present paper is to present an analysis mode of some axle-bearing assemblies, where, both experimentally and theoretically obtained results have been used. Considering the conditions imposed by the gearing precision between the elements of the carter type assembly, the paper shows a special interest to geometrical characteristics of the bearing components, the micro-displacements that happen between these ones being able to influence the gearing results.

Accession Number: WOS:000288686900013

Conference Title: 3rd WSEAS International Conference on Engineering Mechanics, Structures, Engineering Geology/International Conference on Geography and Geology

Conference Date: JUL 22-24, 2010

Conference Location: Corfu Island, GREECE

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

Record 14 of 21

Title: MPM Job-shop under Availability Constraints

Author(s): Zribi, N (Zribi, N.); Duta, L (Duta, L.); El Kamel, A (El Kamel, A.)

Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL **Volume:** 4 **Issue:** 4 **Pages:** 439-451 **Published:** DEC 2009

Abstract: A large part of scheduling literature assumes that machines are available all the time. In this paper, the MPM Job-shop scheduling problem, where the machine maintenance has to be performed within certain time intervals inducing machine unavailability, is studied. Two approaches to solve the problem are proposed. The first is a two-phase approach where the assignment and the sequencing are solved separately. The second is an integrated approach based on the exact resolution of the 2-job problem using the geometric approach.

Accession Number: WOS:000270844700011

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

Record 15 of 21

Title: Interface Architecture for a Web-Based Group Decision Support System

Author(s): Suduc, AM (Suduc, Ana-Maria); Bizoi, M (Bizoi, Mihai); Duta, L (Duta, Luminita); Gorghiu, G (Gorghiu, Gabriel)

Source: STUDIES IN INFORMATICS AND CONTROL **Volume:** 18 **Issue:** 3 **Pages:** 241-246 **Published:** SEP 2009

Abstract: With the exponential development of the web, the decision-makers are likely to use the web to support their decision -making processes. In group decision-making processes supported by an information system web-based or desktop-based - one of the most important element which can influence in a great extent if the system will be or not accepted and successful used for decision making, is the user interface. In this paper, we propose an architecture of an interface for an ideal web-based group decision support system.

Accession Number: WOS:000270244500005

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Suduc, Ana-Maria	C-5370-2008	0000-0002-6462-7609
Bizoi, Mihai	A-6722-2010	0000-0001-5467-0825
Gorghiu, Gabriel	A-6822-2010	0000-0002-4026-345X
Duta, Luminita	H-3063-2012	

Record 16 of 21

Title: Control and Decision-making Process in Disassembling Used Electronic Products

Author(s): Duta, L (Duta, Luminita); Filip, FG (Filip, Florin Gheorghe)

Source: STUDIES IN INFORMATICS AND CONTROL **Volume:** 17 **Issue:** 1 **Pages:** 17-26 **Published:** MAR 2008

Abstract: Due to awareness of the product life cycle's impact on the environment, manufacturers have started to embrace the concept of resource recovery systems as an intermediate solution to the environmental problem. The disassembly process is the main stage in recycling of the manufactured products. Disassembly promotes reuse, recycling, material and energetical recovery. It needs advanced control and real-time decision making schemes. In this article, the authors aim at surveying several state-of the art solutions of robotized disassembly cells.

Accession Number: WOS:000268913600002

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

Record 17 of 21

Title: Genetic Algorithms: a Decision Tool in Industrial Disassembly

Author(s): Duta, L (Duta, Luminita); Filip, FG (Filip, Florin Gheorghe); Zamfirescu, C (Zamfirescu, Constantin)

Edited by: Iantovics BL; Enachescu C; Filip FG

Source: 2008 COMPLEXITY & INTELLIGENCE OF THE ARTIFICIAL & NATURAL COMPLEX SYSTEMS, MEDICAL APPLICATIONS OF THE COMPLEX SYSTEMS, BIOMEDICAL COMPUTING **Pages:** 55-+ **DOI:** 10.1109/CANS.2008.14 **Published:** 2008

Abstract: In the recycling process of the Waste Electrical and Electronic Equipment (WEEE) the disassembly process has a central role. Disassembly is not the reverse of the assembly process, real difficulties occur in the tasks assignment process of the disassembly operations. Since this is a multi objective optimization problem, we prove that genetic algorithms provide a useful multi-criteria decision tool in the industrial disassembly process.

Accession Number: WOS:000277249300007

Conference Title: International Conference on Complexity and Intelligence of the Artificial and Natural Complex Systems - Medical Applications of the Complex Systems Biomedical Computing

Conference Date: NOV 08-10, 2008

Conference Location: Petu Maior Univ Targu, Targu Mures, ROMANIA

Conference Sponsors: Romanian Acad, Bucharest & Petru Maior Univ Targu Mures

Conference Host: Petu Maior Univ Targu

Author Identifiers:

Author	ResearcherID Number	ORCID Number

Duta, Luminita	H-3063-2012	

ISBN: 978-1-4244-3937-9

Record 18 of 21

Title: Genetic Algorithms: A Decision Tool In Industrial Disassembly

Author(s): Duta, L (Duta, Luminita); Filip, FG (Filip, Florin Gh.); Zamfirescu, C (Zamfirescu, Constantin)

Edited by: Iantovics B; Enachescu C; Filip F

Source: COMPLEXITY IN ARTIFICIAL AND NATURAL SYSTEMS, PROCEEDINGS **Pages:** 124-127 **Published:** 2008

Abstract: In the recycling process of the Waste Electrical and Electronic Equipment the disassembly process has a central role. Disassembly is not the reverse of the assembly process, real difficulties occur in the tasks assignment process of the disassembly operations. Since this is a multi objective optimization problem, we prove that genetic algorithms provide a useful multi-criteria decision tool in the industrial disassembly process.

Accession Number: WOS:000264924800016

Conference Title: International Conference on Complexity and Intelligence of the Artificial and Natural Complex Systems - Medical Applications of the Compex Systems Biomedical Computing

Conference Date: NOV 08-10, 2008

Conference Location: Petu Maior Univ Tg, Mures, ROMANIA

Conference Host: Petu Maior Univ Tg

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

ISBN: 978-973-7794-76-5

Record 19 of 21

Title: Disassembly line scheduling with genetic algorithms

Author(s): Duta, L (Duta, Luminita); Filip, FG (Filip, Florin Gheorghe); Henrioud, JM (Henrioud, Jean-Michel); Popescu, C (Popescu, Ciprian)

Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL **Volume:** 3 **Issue:** 3 **Pages:** 270-280 **Published:** 2008

Abstract: Disassembly is part of the demanufacturing and it is meant to obtain components and materials from end-of-life products. An essential performance objective of a disassembly process is the benefits it brings, that is the revenue brought by the retrieved parts and material, diminished by the cost of their retrieval operations. A decision must be taken to balance an automatic disassembly line. A well balanced line will decrease the cost of disassembly operations. An evolutionary (genetic) algorithm is used to deal with the multi-criteria optimization problem of the disassembly scheduling.

Accession Number: WOS:000257275300005

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

ISSN: 1841-9836

Record 20 of 21

Title: Evolutionary programming in disassembly decision making

Author(s): Duta, L (Duta, Luminita); Filip, FG (Filip, Florin Gheorghe); Popescu, C (Popescu, Ciprian)

Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL **Volume:** 3 **Pages:** 282-286 **Supplement:** S **Published:** 2008

Abstract: Disassembly retrieves components and materials from end-of-life products for remanufacturing, reuse and recycling. An essential criterion for a performing disassembly system is the benefit it brings, that is the revenue brought by the retrieved parts and material, decreased by the cost of their retrieval. A well balanced line will decrease the cost of disassembly operations. An evolutionary algorithm is used to deal with the multi-criteria optimization problem of the disassembly scheduling.

Accession Number: WOS:000257497600042

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

ISSN: 1841-9836

Record 21 of 21

Title: A method for dealing with multi-objective optimization problem of disassembly processes

Author(s): Duta, L (Duta, L); Filip, FG (Filip, FG); Henrioud, JM (Henrioud, JM)

Book Group Author(s): IEEE; IEEE; IEEE

Source: PROCEEDINGS OF THE 2003 IEEE INTERNATIONAL SYMPOSIUM ON ASSEMBLY AND TASK PLANNING (ISATP2003) **Pages:** 163-168 **DOI:** 10.1109/ISATP.2003.1217205 **Published:** 2003

Abstract: Disassembly of manufactured goods induces both disassembly costs and revenues from the parts saved by the process. Thus, a good trade-off has to be found that depends, both on the depth of the disassembly, and on the sequence of operations. This optimization problem depends upon the structure of the disassembly system: if it is made of a single workstation, the costs depend mainly upon the process duration. If the system is a line, the costs depend mainly upon the line balancing, all the more if it is highly manual. In this paper the authors consider the line structure and propose an algorithm which will allow to find a disassembly sequence that optimizes a very simple function integrating the income from the parts, the material produced by the process and the cycle time of the disassembly line. An example is given to illustrate the proposed algorithm.

Accession Number: WOS:000184467400029

Conference Title: 5th IEEE International Symposium on Assembly and Task Planning (ISATP2003)
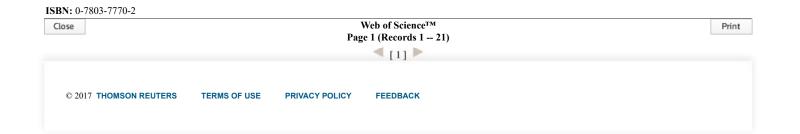
Conference Date: JUL 10-11, 2003

Conference Location: BESANCON, FRANCE

Conference Sponsors: IEEE Robot & Automat Soc, Assembly Net

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Duta, Luminita	H-3063-2012	

ISBN: 0-7803-7770-2