JOMSA

Japanese Operations Management and Strategy Association

オペレーションズ・マネジメント&ストラテジー学会

The Third International Symposium on Operations Management and Strategy 2013

JOMSA 第5回全国研究発表大会プログラム集

Operations Management for Sustainability and Innovation

Dates: May31－June2, 2013

Venue: Osaka City University, Sugimoto Campus, General Education Building

会　場：大阪市立大学 杉本キャンパス、全学共通教育棟

3-3-138 Sugimoto, Sumiyoshi-ku, Osaka-city, 558-8585 Japan

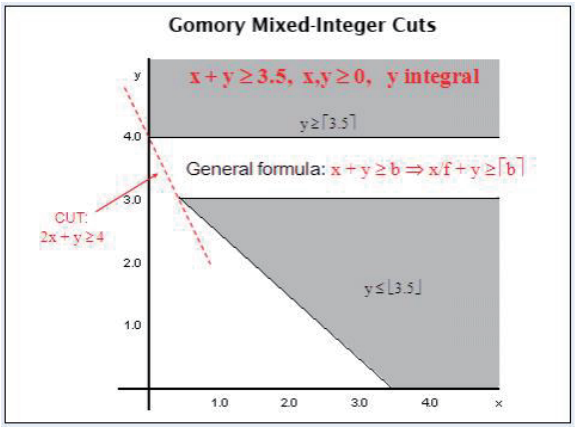
オペレーションズ・マネジメント&ストラテジー学会

Japanese Operations Management and Strategy Association

Gurobi Optimizer バージョン 5.5

最適化ソリューションに無限の可能性

今まで、大規模な問題、複雑な問題で数々の最適化ソフトウェアを試してみたが、解を得るのに時間がかかる、また、解を得られなかったあなたに朗報です。第三者機関が実施したベンチマークサイトで世界最高速を常に記録し続けている線形計画（LP）、混合整数計画（MIP）、二次計画（QP）、混合整数二次計画（MIQP）、二次制約（QCP）および混合整数二次制約（MIQCP）のための最新鋭の数理最適化ソルバー Gurobi Optimizer 新バージョン 5.5 がリリースされました。バージョン 5.5 では、新たに計算サーバ機能をサポートしました。この機能により、ユーザは、最適化アプリケーションソフトウェアライセンスおよび計算リソースをより効率的に使用でき、ハイパフォーマンスな動作に支障がない最適化アプリケーションの実行環境が確保できます。Gurobi Optimizer は、最新のハードウェアのアーキテクチャおよびマルチコア プロセッサ技術を徹底的に活用するよう設計された、先進の最適化アルゴリズムにより、高速に信頼性ある解を導き出します。



Gurobi Optimizer は米国 Gurobi Optimization Inc. の開発製品です。

Visual Studio は 米国 Microsoft Corporation の米国及びその他の国における登録商標または商標です 。

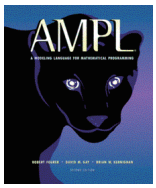
究極のスケーラビリティー

最強のモデリング言語 AMPL

AMPL は、離散および連続変数における線形および非線形最適化問題のための包括的でパワフルな代数モデリング言語です。ベル研究所で開発された AMPL は、コンピュータが適切なソルバーとのコミュニケーションを管理している間、ユーザーが、共通表記法やよく知られている概念を使うことで、最適化モデルを明確に表し、そして解決法を調べます。AMPL のスピードやコントロールオプションが、繰り返し実行のための特に能率的選択を導き出し、AMPL の柔軟性と便利さが、迅速なプロトタイプ作成およびモデル開発を理想的に支援します。

AMPL に対応した下記の非線形ソルバーの販売を開始しました。

KNITRO、MINOS、CONOPT、SNOPT

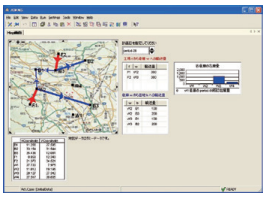


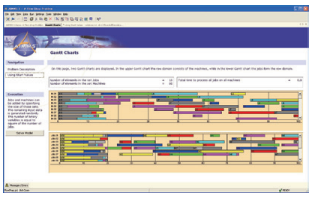
AMPL は米国 AMPL Optimization LLC の開発製品です。

応用開発モデリングツール AIMMS

スムーズな開発を支援

AIMMS は、オペレーションズ リサーチを基盤にする最適化アプリケーションおよびプランニング アプリケーション構築のための応用開発環境を提供します。AIMMS は、エネルギー、サプライチェーン マネジメント（SCM）、生産計画、ロジスティックス、植林計画、リスク管理、収益管理、資産管理などの幅広い産業分野において、ワールドワイドで活躍するリーディング カンパニーの意思決定支援のため、広く採用されています。





AIMMS はオランダ Paragon Decision Technology B.V. の開発製品です。

AIMMS はオランダ Paragon Decision Technology B.V. の登録商標です。

Gurobi Optimizer/AIMMS/AMPL 製品無償トレーニング

オクトーバー・スカイでは、ご購入を検討されているお客様を対象に、半日ハンズオン・トレーニングを実施しています。トレーニングに関しては、下記 Web サイトを参照してください。

URL: http://www.octobersky.jp/support/training.html

お問い合わせ： info@octobersky.jp

<お問い合わせ先>

株式会社オクトーバー・スカイ

〒183-0055　東京都府中市府中町 1-25-12　ゼルコバビル 4 階

TEL : 042-319-1885 / FAX : 042-319-1886

URL : http://www.octobersky.jp　E-mail : info@octobersky.jp

The Third International Symposium on Operations Management and Strategy 2013

JOMSA 第5回全国研究発表大会

Operations Management for Sustainability and Innovation
May 31 – June 2, 2013, Osaka City University, Japan

Conference Venue: General Education Building, Osaka City University
3-3-138 Sugimoto, Sumiyoshi-ku, Osaka-city, 558-8585 Japan
Registration: Saturday, June 1, 10:00-18:30 on the first floor of General Education Building
Sunday, June 2, 8:30-16:00 on the first floor of General Education Building
Access to the Venue and Campus Map: http://e-jomsa.jp/kaijo_osaka2013eng.html

開催場所：大阪市立大学 杉本キャンパス、全学共通教育棟（8 号館）
〒558-8585 大阪市住吉区杉本 3-3-138
受付： 6 月 1 日（土） 10:00 -18:30 全学共通教育棟（8 号館）
6 月 2 日（日） 8:30-16:00 全学共通教育棟（8 号館）
アクセス情報とキャンパス地図：http://e-jomsa.jp/kaijo_osaka2013.html

Japanese Operations Management and Strategy Association
オペレーションズ・マネジメント＆ストラテジー学会
Osaka City University
大阪市立大学

Greetings

Welcome to Third ISOMS 2013 and Fifth National Conference of JOMSA

Organizing Committee Co-Chairs
Hirofumi Matsuo
Masaharu Ota

We are pleased to host the joint conference of the Third (ISOMS) International Symposium on Operations Management and Strategy and the Fifth National Conference of (JOMSA) the Japanese Operations Management and Strategy Association at City University of Osaka. This third ISOMS 2013 is jointly sponsored by JOMSA and the SESAMI (Strategic Entrepreneurship and Sustainability Alliance Management) Program of Kobe University. On behalf of JOMSA, SESAMI Program, and Osaka City University, we welcome your participation and contribution.

The main theme of this joint conference is "Operations Management for Sustainability and Innovation." From the view point of operations management, we will address the major issues that the society as a whole is facing in maintaining and sustaining our economic and daily activities. Globally, we have experienced and are experiencing unusual climate variations and natural disasters in one end, and financial catastrophes, severe unemployment and poverty, and a catastrophic nuclear accident in the other end. In Japan, the manufacturing companies in many business sectors have lost global competitiveness for the past two decades despite still possessing excellent Monozukuri (manufacturing and craftsmanship) capabilities, and the society seems to be losing sight of where it should be heading for.

Granted that the sustainability is an important principle for manufacturing companies to adhere to, we need to think innovatively from scratch how they should restructure and redesign the ways the business is conducted. One solution might shift from just manufacturing products to servicizing its operations while keeping high quality manufacturing capacities. The other solution might redesign the entire supply chain from the very upstream ends to the customer. To think through these issues, we need to ask ourselves what ultimate objectives the manufacturing firm should have. Just keeping good bottom line performance is not sufficient although that per se is admittedly difficult. Are there any innovative ways that our discipline of operations management and strategy can recommend to the firm and the society? This symposium is a forum to discuss how the sustainability principle can be operationalized.

As a plenary speaker, we are happy to have Professor Morris Cohen of the Wharton School of the University of Pennsylvania who has been an academic thought leader in our discipline on the interface of manufacturing and service for many years. We are also fortunate to have Mr. Tsuyoshi Nomura, who is the head of Monozukuri Division of Panasonic Corporation. From the SESAMI Program, Professor Katsuhiko Kokubu gives a plenary presentation on cost accounting for material efficiency, and Professor Munehiko Itoh presents his recent research on global sustainability management.

We hope that this joint conference becomes an opportunity to further our understanding of and research on sustainability issues in operations management and to develop innovative resolution on this important research and societal agenda.

■ Saturday, June 1, 2013, 11:00 - 12:00 at Room 811 (1st Floor) Supply Chain Management through Material Flow Cost Accounting?
Professor Katsuhiko Kokubu, Kobe University

Material flow cost accounting (MFCA), a major environmental management accounting tool, has been developed worldwide. ISO 14051 on MFCA was published in 2011. In Japan, the government has been strongly supportive for promoting MFCA, and the number of companies introducing this tool has been steadily increasing. As indicated in ISO 14051, MFCA can be extended to multiple organizations within a supply chain, to help them develop an integrated approach to more efficient use of materials and energy. However, it is very difficult to introduce MFCA into a supply chain because sharing cost data information between companies becomes an obstacle. The Japanese government project on enhancing resource efficiency in the supply chain employing MFCA has provided much insight on this issue. This presentation discusses the significance and issues for introducing MFCA into the supply chain, and examines some representative cases. Finally, proposals for future development are presented.

■ Saturday, June 1, 2013, 13:00 - 14:00 at Room 811 (1st Floor)
Product-Service Systems aka Servicization: Are Products Obsolete?
Professor Morris A. Cohen, Wharton School of the University of Pennsylvania

This talk will consider how the movement to a service based economy in both developed and developing countries can impact manufacturing companies. We will focus on the emerging competitive strategy, based on Product-Service Systems, (also known as “Servicization”), whereby tangible manufactured products are brought to market as services that lead to the generation of customer value through product use by customers. We will review recent research results on how quality for the bundle of products and services associated with manufactured products is perceived by both customers and firms. We will also consider how the customer-supplier relationship is impacted through incentive alignment based on a product’s delivered performance. Finally, we will discuss challenges associated with optimal global supply chain management and resource deployment in a service dominated environment. The talk will conclude with discussion of the (expected/observed) impact of Servicization as firms adapt to this new paradigm.

■ Sunday, June 2, 2013, 11:00 -12:00 at Room 811 (1st Floor)
Panasonic Production System and the Creation of New Business
Mr. Tsuyoshi Nomura, Panasonic Corporation

The development of new business or product, which is desired in these days, and Monozukuri (Manufacturing Process Innovation and Production Engineering) are an indispensable pair in the manufacturing industry. In this talk, Panasonic's activities of Monozukuri Innovation are introduced. They are a concrete example from a view point of QCDE (Quality, Cost, Delivery, Environment) and that of human resource development. Also introduced is the strategy of production technology for new business creation. Using some cases on facilities and electric devices, the necessary condition is shown for the successful progression of seed technology creation into mass production. The focus is placed on the development leader’s ability or talent and the fit between the technology strategy and market.

■ Saturday, June 1, 2013, 14:15 - 15:15 at Room 811 (1st Floor)

The Corporate Sustainability and Global SCM: Video Cases of Daikin Industries, Ltd. and Konica Minolta Holdings, Inc.

Professor Munehiko Itoh, Kobe University

The global supply chains of two Japanese corporations, Daikin Industries, Ltd. and Konica Minolta Holdings, Inc. are introduced in this special session. Both companies were selected for inclusion in the Dow Jones Sustainability Indexes in 2012, which comprise approximately 300 leading companies worldwide selected through evaluation based on economic, environmental, and social criteria. This means that the both corporations have excellent management systems for Global SCM. The SCM of both corporations are internationalized, and the ratios of foreign trade are quite high. More than 70% of the businesses are completed in overseas.

Kobe University has been investigating the worldwide operations of both corporations and interviewing with top managements. All of the facilities and interviews are filmed and edited as video case material. We have investigated 16 facilities and interviewed more than 50 employees of both corporations. The video cases include the whole SCM, from product development to sales, containing long value chains crossing the boarders. In this session, the part of the video case will be demonstrated.

Bartlett and Ghoshal (1991) identified four distinct types of multinational corporations (MNCs). According to this typology, Daikin has multinational and Konica Minolta Holdings global operation system. The video cases identify how these MNCs balance the potential needs of global integration and global differentiation in SCM. Each MNC should ideally choose the strategic model that satisfies the needs of the environment, and it should also choose the strategic model that will secure global competitiveness. Daikin has multi-domestic strategy, which is based on responsiveness to local market demands. Therefore, Daikin has been acquiring local sales companies especially in EU. It has to change the strategy to servitization-and-solution business from the product-out of air-conditioned hardware. On the contrast, Konica Minolta Holdings has been doing global strategy, which means low pressure for integration and differentiation. The production is based in China, and the majority of the value chain is maintained at the headquarters in Japan. The control of technologies and general management systems are structured and developed in Japan.

■ Saturday, June 1, 2013, 17:10 – 18:10 at Room 844 (4th Floor)

Demonstration of Video Cases on IKEA and Fnac

Professor Muneo Itoh and Professor Yoichi Matsumoto, Kobe University

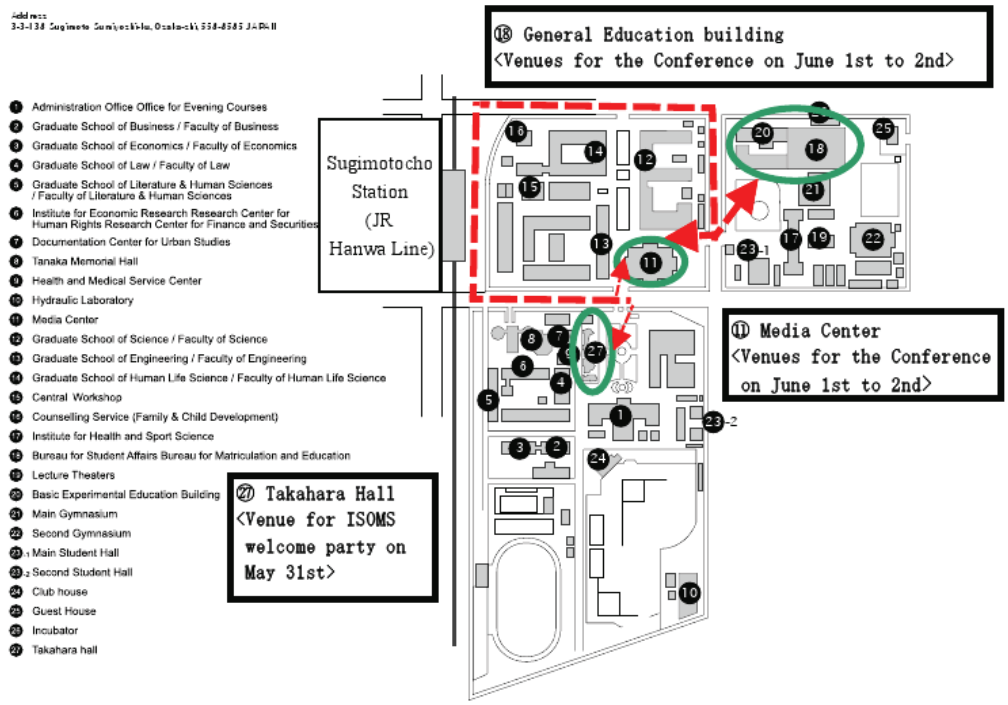
In this session, two samples of video case materials will be demonstrated. IKEA vide case shows IKEA's service innovation to develop global business. IKEA emphasizes the co-production of value with customers. This video shows how its merchandizing, visual merchandizing and flat-pack work in detail. Fnac video case shows the international supply chain collaboration between Fnac and Panasonic, focusing on digital still cameras. The video describes Fnac's effort to evaluate products by itself and how the global coordination of supply chain applying VMI and CPFR is realized.

ISOMS/JOMSA Program

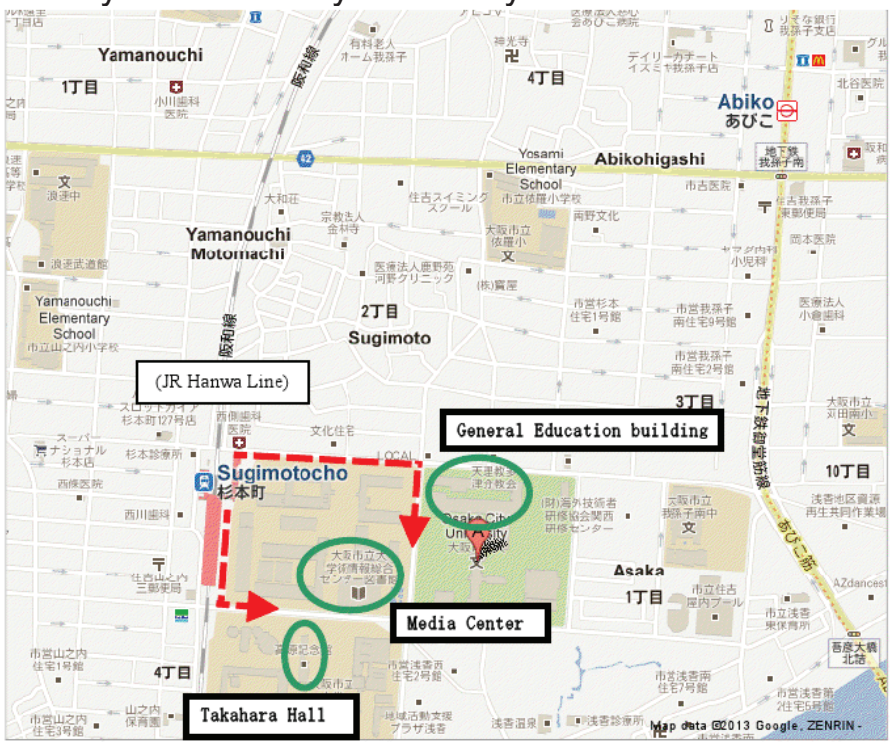
9:30-16:00	Plant Tour: Panasonic Founder's House and Daikin Industries		
16:30-18:00	Welcome Reception @ Takahara Hall		
	ISOMS 2013 Time Table: Saturday, June 1, 2013		
10:00-10:45	Registration @ 1st Floor of General Education Building		
10:45-11:00	Opening @ Room 811 (1st Floor)		
11:00-12:00	ISOMS/SESAMI Plenary Session 1: Katsuhiko Kokubu (Kobe University) Supply Chain Management through Material Flow Cost Accounting @ Room 811 (1st Floor)		
12:00-13:00	Lunch Time Break		
13:00-14:00	ISOMS/SESAMI Plenary Session 2: Morris A. Cohen (Wharton School, University of Pennsylvania) Product-Service Systems aka Servicization: Are Products Obsolete? @ Room 811 (1st Floor)		
14:00-14:15	Break @ 847 (4th Floor)		
14:15-15:15	ISOMS/SESAMI Special Session 1: Munehiko Itoh (Kobe University) The Corporate Sustainability and Global SCM: Video Cases of Daikin Industries, Ltd. and Konica Minolta Holdings, Inc. @ Room 811 (1st Floor)		
15:15-15:30	Break @ 847 (4th Floor)		
	Room 844 (4th Floor)	Room 845 (4th Floor)	Room 846 (4th Floor)
15:30-17:00	A1. ISOMS/SESAMI Invited Session: Sustainability Management Chair: Katsuhiko Kokubu and Takehisa Kajiwara (Kobe University)	B1. ISOMS Session: Healthcare Operations Management Chair: Takaya Kawamura (Osaka City University)	C1. JOMSA Session: New JIT System Chair: Kakuro Amasaka (Aoyama Gakuin University)
17:10-18:10	ISOMS/SESAMI Special Session 2: Demonstration of Video Cases on IKEA and Fnac @Room 844 (4th Floor)		JOMSA General Assembly @Room 811 (1st Floor)
18:30-20:30	Banquet @ Wisteria (1st Floor of Media Center Building)		
	ISOMS 2013 Time Table: Sunday, June 2, 2013		
	Room 844 (4th Floor)	Room 845 (4th Floor)	Room 846 (4th Floor)
9:00-10:30	A2. ISOMS Session: Quality and Knowledge Management in Operations Chair: Rita Arauz-Takakuwa (Technological University of Panama)	B2. ISOMS Session: IT Applications to Operations and Service Chair: Hiroshi Koga (Kansai University)	C2. JOMSA Session: Manufacturing and Supply Chain Strategy Chair: Hisashi Kurata (University of Tsukuba)
10:30-11:00	Break @ 847 (4th Floor)		
11:00-12:00	ISOMS/SESAMI Plenary Session 3: Tsuyoshi Nomura (Panasonic Corporation) Panasonic Production System and the Creation of New Business @ Room 811 (1st Floor)		
12:00-13:00	Lunch Time Break		
	ISOMS 2013 Time Table: Sunday, June 2, 2013		
	Room 844 (4th Floor)	Room 845 (4th Floor)	Room 846 (4th Floor)
13:00-14:30	A3. ISOMS Session: Marketing and Operations Interface Chair: Kakuro Amasako (Aoyama Gakuin University)	B3. ISOMS Session: Mathematical Models for SCM Chair: Wenyih Lee (Chang Gung University)	C3. JOMSA Session: Sustainability Management Chair: Junichi Tomita (Toyo University)
14:30-14:45	Break @ 847 (4th Floor)		
	ISOMS 2013 Time Table: Sunday, June 2, 2013		
	Room 844 (4th Floor)	Room 845 (4th Floor)	Room 846 (4th Floor)
14:45-16:15	A4. ISOMS Session: Manufacturing and Supply Chain Strategy Chair: Hirofumi Matsuo (Kobe University)	B4. ISOMS Session: Service Quality and Service Science Chair: Hajime Mizuyama (Aoyama Gakuin University)	C4. JOMSA Session: Customer Satisfaction and Customer Information Chair: Hajime Itoh (Otaru Commerce University)

Campus Map

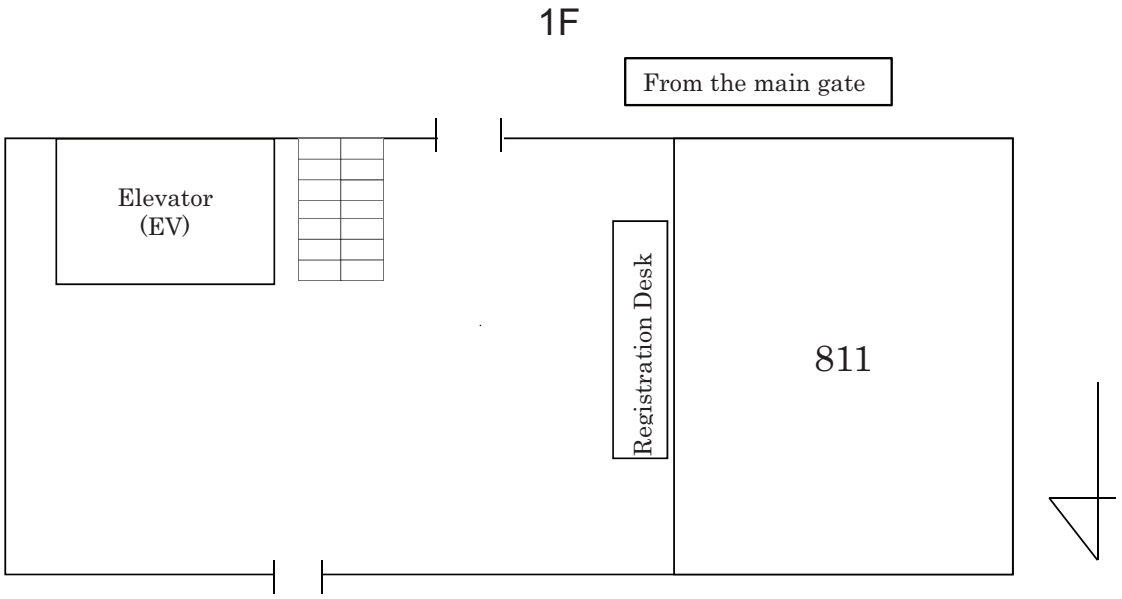
Sugimoto campus of OCU

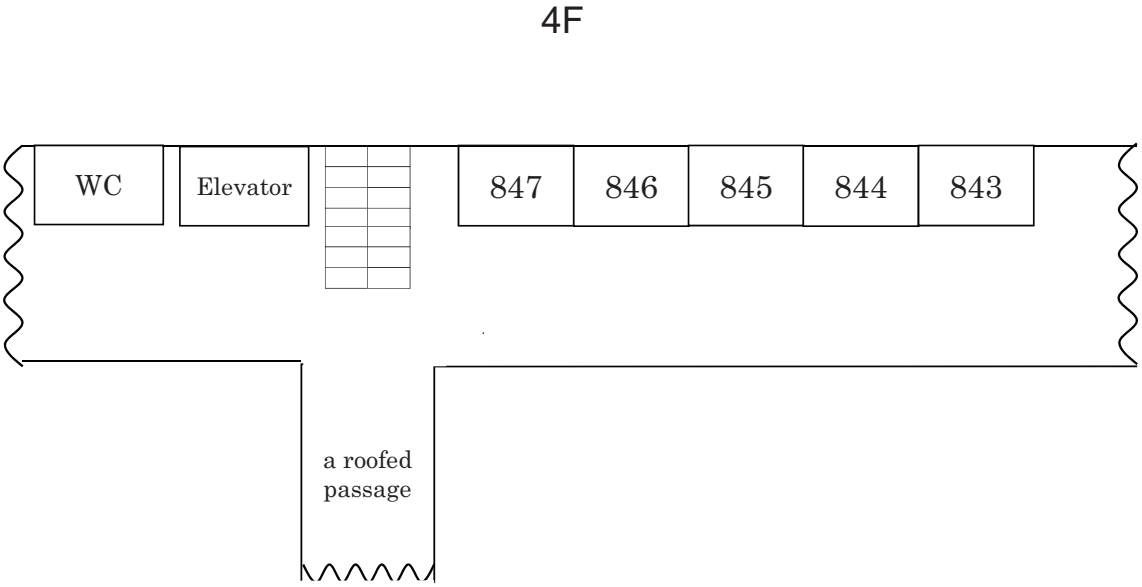


Vicinity of Osaka City University



Layout of General Education Building





Symposium Session Schedule

	ISOMS 2013 Time Table: Friday, May 31, 2013		
9:30-16:00	**Plant Tour: Panasonic Founder's House and Daikin Industries**		
16:30-18:00	**Welcome Reception @ Takahara Hall**		
	ISOMS 2013 Time Table: Saturday, June 1, 2013		
10:00-10:45	**Registration @ 1st Floor of General Education Building**		
10:45-11:00	**Opening @ Room 811 (1st Floor)**		
11:00-12:00	**ISOMS/SESAMI Plenary Session 1: Katsuhiko Kokubu (Kobe University)** **Supply Chain Management through Material Flow Cost Accounting @ Room 811 (1st Floor)**		
12:00-13:00	**Lunch Time Break**		
13:00-14:00	**ISOMS/SESAMI Plenary Session 2: Morris A. Cohen (Wharton School, University of Pennsylvania)** **Product-Service Systems aka Servicization: Are Products Obsolete? @ Room 811 (1st Floor)**		
14:00-14:15	**Break @ 847 (4th Floor)**		
14:15-15:15	**ISOMS/SESAMI Special Session 1: Munehiko Itoh (Kobe University)** **The Corporate Sustainability and Global SCM:** **Video Cases of Daikin Industries, Ltd. and Konica Minolta Holdings, Inc. @ Room 811 (1st Floor)**		
15:15-15:30	**Break @ 847 (4th Floor)**		
	Room 844 (4th Floor)	**Room 845 (4th Floor)**	**Room 846 (4th Floor)**
15:30-17:00	**A1. ISOMS/SESAMI Invited Session: Sustainability Management** **Chair: Katsuhiko Kokubu and Takehisa Kajiwara (Kobe University)**	**B1. ISOMS Session: Healthcare Operations Management** **Chair: Takaya Kawamura (Osaka City University)**	**C1. JOMSA Session: New JIT System** **Chair: Kakuro Amasaka (Aoyama Gakuin University)**
	A1-1 Stakeholder Influence on the Adoption of Assurance and Third Party Comment on Sustainability Reporting: Evidence from Japan Mohammad Badrul Haider Katsuhiko Kokubu Kimitaka Nishitani (Kobe University)	B1-1 Improving Chronic Rhinitis through Self-care Yu-Cheng Hsiao (Takming University of Science and Technology)	C1-1 自動車ボルト締結部の緩みメカニズムを捉える高信頼性 CAE 解析モデルの創案 青山学院大学　橋本健 青山学院大学　小野寺雄大 青山学院大学　天坂格郎
	A1-2 MFCA Management to Establish Sustainable Corporate Management Michiyasu Nakajima Asako Kimura Shoji Oka (Kansai University)	B1-2 Success Factors for Process Innovation and Development of Wheelchair for Dogs with Two Disabled Hind Legs Nuttachart Chansangsri Natcha Thawesaengskulthai (Chulalongkorn University)	C1-2 高信頼性 CAE を活用した自動車開発設計：駆動系オイルシール摩耗による油漏れ解析 青山学院大学　赤岩亮 青山学院大学　天坂格郎
	A1-3 Green Supply Chain Management and CO_2 Emissions Performance in Japanese Manufacturing Firms Kimitaka Nishitani Katsuhiko Kokubu Takehisa Kajiwara (Kobe University)	B1-3 An Institutional Approach to the Studies of Professional Organizations: A Case Study on the Institutionalization of New "Expert" Nurse in Japan Maho Tanaka Takaya Kawamura (Osaka City University)	C1-3 自動車エクステリアカラーとインテリアカラーのマッチングモデル "ACMC" の創案 青山学院大学　篠木建実 青山学院大学　相原早紀 青山学院大学　天坂格郎
			C1-4 顧客が求める自動車パンフレットデザインの創出法：生体計測実験と統計科学の併用 青山学院大学　小泉香織 青山学院大学　武藤舞子 青山学院大学　天坂格郎
17:10-18:10	**ISOMS/SESAMI Special Session 2: Demonstration of Video Cases on IKEA and Fnac @Room 844 (4th Floor)**		**JOMSA General Assembly @Room 811 (1st Floor)**
18:30-20:30	**Banquet @ Wisteria (1st Floor of Media Center Building)**		

	ISOMS 2013 Time Table: Sunday, June 2, 2013		
	Room 844 (4th Floor)	**Room 845 (4th Floor)**	**Room 846 (4th Floor)**
9:00-10:30	**A2. ISOMS Session: Quality and Knowledge Management in Operations** **Chair: Rita Arauz-Takakuwa (Technological University of Panama)**	**B2. ISOMS Session: IT Applications to Operations and Service** **Chair: Hiroshi Koga (Kansai University)**	**C2. JOMSA Session: Manufacturing and Supply Chain Strategy** **Chair: Hisashi Kurata (University of Tsukuba)**
	A2-1 An Explorative Study on a Correlation between Quality-Creating Performances and Intra-Organizational Communication Atsuko Ebine (Surugadai University)	B2-1 Effect of IT-enabled Supply Chain Process Integration on Firm's Operational Performance Odkhishig Ganbold, Yoshiki Matsui (Yokohama National University)	C2-1 人中心の新たな生産の仕組み：統合型ヒューマンマネジメントシステムの構築 トヨタ自動車株式会社　酒井浩久 青山学院大学　天坂格郎
	A2-2 How the Knowledge Base Structure Impacts Knowledge-related Outcomes of a Firm Yoichi Matsumoto (Kobe University)	B2-2 Effect of Quality on Learning Effectiveness, Learning Intention and Learning Satisfaction Wei Yu Yang Yun Kuei Huang (Takming University of Science and Technology)	C2-2 BOP 市場ビジネスとその事業戦略展開の順序に関する考察：サプライチェーン戦略の視点 学習院大学　吉岡孝昭 学習院大学　森田道也
	A2-3 Evaluation of Productivity Measurement and Quality in Manufacturing Sector: Worldwide Phenomena Muhammad Rafid Mahmood Muhammad Daniel Pirzada Farah Hayat Usama Bin Perwez, (Centre for Advanced Studies in Engineering)	B2-3 Indirect Effect of Information Systems on Inventory Turnover: An Empirical Analysis Osam Sato (Tokyo Keizai University) Yoshiki Matsui (Yokohama National University) Tomoaki Shimada (Kobe University) Hideaki Kitanaka (Takushoku University) Yutaka Ueda (Seikei University)	C2-3 海外生産拠点における製造業の品質向上に関する研究：新ベトナム生産モデル”NVPM”の創案 青山学院大学　宮下省吾 青山学院大学　天坂格郎
	A2-4 The Impact of Knowledge Management on the Quality of Logistics Operations in Panama Rita Arauz-Takakuwa (Technological University of Panama)	B2-4 On the Formation Process of IT Capability: From the Viewpoint of an Actor Network Theory Hiroshi Koga (Kansai University)	C2-4 信用取引契約を考慮したサプライチェーン・コーディネーションの考察 松本大学　田中 正敏 筑波大学　倉田 久
10:30-11:00	**Break @ 847 (4th Floor)**		
11:00-12:00	**ISOMS/SESAMI Plenary Session 3:　Tsuyoshi Nomura (Panasonic Corporation)** **Panasonic Production System and the Creation of New Business　@ Room 811 (1st Floor)**		
12:00-13:00	**Lunch Time Break**		

	ISOMS 2013 Time Table: Sunday, June 2, 2013		
	Room 844 (4th Floor)	**Room 845 (4th Floor)**	**Room 846 (4th Floor)**
13:00-14:30	**A3. ISOMS Session: Marketing and Operations Interface** **Chair: Kakuro Amasaka (Aoyama Gakuin University)**	**B3. ISOMS Session: Mathematical Models for SCM** **Chair: Wenyih Lee (Chang Gung University)**	**C3. JOMSA Session: Sustainability Management** **Chair: Junichi Tomita (Toyo University)**
	A3-1 A Study of Eco-Friendly Products Encouraging Consumers to Take Eco-Friendly Actions Meiko Bannai Tomoko Kajiyama Noritomo Ouchi (Aoyama Gakuin University)	B3-1 Risk-Averse Newsvendor Model in the Manufacturer-retailer Interactions under the Mean-risk Criterion and the Conditional Value-at-Risk Criterion Shota Ohmura (Kobe University)	C3-1 BOP 市場ビジネスと価値創造プロセスイノベーション戦略 学習院大学　吉岡孝昭 学習院大学　森田道也
	A3-2 Importance of Vendor and Manufacturer Relationship for Effective Lean Practices Muhammad Rafid Mahmood Irfan Manarvi (Centre for Advanced Studies in Engineering)	B3-2 Optimal Policy in Hybrid Manufacturing/Remanufacturing System Yasutaka Kainuma (Tokyo Metropolitan University)	C3-2 BOP 市場ビジネスとそのサステナビリティ 学習院大学　吉岡孝昭 学習院大学　森田道也
	A3-3 Decision Making Factors for the Potential Small and Medium Enterprise (SME) Exporters Dollawit Budcharoentong Thanawan Sangsuwan Achara Chandrachai Chaipat Lawsirirat (Chulalongkorn University)	B3-3 Cope with Uncertain Customer Demands by Using Seru Production System Yong Yin (Yamagata University)	C3-3 リバース・サプライ・チェーン・ネットワークの設計 首都大学東京　佐藤遥香 首都大学東京　開沼泰隆
	A3-4 Constructing a Scientific Mixed Media Model for Boosting Automobile Dealer Visits: Evolution of Market Creation Employing TMS Kakuro Amasaka Motoi Ogura Hisatoshi Ishiguro (Aoyama Gakuin University)	B3-4 Reticle Floorplanning for the Multiple Project Wafer Service with the Constraint of MWSRC Die-sawing Method Wenyih Lee Sheng-Pen Wang Kai-Wen Teng (Chang Gung University)	C3-4 政策転換期における日本の太陽光発電産業とビジネスモデルの変容 東洋大学　高松　政博 東洋大学　富田　純一
14:30-14:45	**Break @ 847 (4th Floor)**		

	ISOMS 2013 Time Table: Sunday, June 2, 2013		
	Room 844 (4th Floor)	Room 845 (4th Floor)	Room 846 (4th Floor)
14:45-16:15	**A4. ISOMS Session: Manufacturing and Supply Chain Strategy** **Chair: Hirofumi Matsuo (Kobe University)**	**B4. ISOMS Session: Service Quality and Service Science** **Chair: Hajime Mizuyama (Aoyama Gakuin University)**	**C4. JOMSA Session: Customer Satisfaction and Customer Information** **Chair: Hajime Itoh (Otaru Commerce University)**
	A4-1 The Differential Effects of Internal and External Customer Orientation Approaches on B2B Customer Value Creation in New Product Development Dinush Chanaka Wimalachandra Bjoern Frank Takao Enkawa (Tokyo Institute of Technology)	B4-1 Country-Of-Origin and Brand Effects on Consumers' Perceived Risk and Perceived Value: The Case of International Air Travel Kaede Sano (Doshisha University)	C4-1 品質モデルを基にした顧客満足度関数の同定方法 首都大学東京　天野大輔 首都大学東京　開沼泰隆
	A4-2 The Capability of Inter-functional Product Development for Effective Integration of Product and Supply Chain Strategies Michiya Morita (Gakushuin University) E. James Flynn (Indiana University) Jose A. D. Machuca (University of Seville) Shigemi Ochiai (Jonquil Consulting, Inc.)	B4-2 Product, Service Quality and Customer Value in Business-to-Business Marketing Towako Sakama (Kobe University)	C4-2 顧客の映画鑑賞意欲を高める映画予告編に関する一研究：若年層向けアクション映画を例として 青山学院大学　柳澤一馬 青山学院大学　飯田貴之 青山学院大学　天坂格郎
	A4-3 Implications of the Tohoku Earthquake for the Supply Chain Coordination Mechanism of Toyota Production System Hirofumi Matsuo (Kobe University)	B4-3 A Comparison between Choice Experiments and Prediction Markets for Collecting Preference Data in Conjoint Analysis Hajime Mizuyama (Aoyama Gakuin University)	C4-3 顧客情報を反映した従業員の人員配置法の創案：旅館の客室接待業務を例として 青山学院大学　沖原大樹 青山学院大学　中村将大 青山学院大学　村上啓介 青山学院大学　天坂格郎
			C4-4 公的医療施設における経営戦略実現の視点：本質的サービスと補完的サービスへの評価による顧客満足調査を中心に 小樽商科大学　伊藤一

The Journal of Japanese Operations Management and Strategy
オペレーションズ・マネジメント＆ストラテジー学会論文誌

The mission of The Journal of Japanese Operations Management and Strategy (JOMS) is to serve as the primal research journal in operations management in Japan. The journal publishes academic research into the problems and concerns of managers who design and manage the product and process in manufacturing and service industries. It covers all the operations related issues such as the effective and efficient management in product development, procurement, production, distribution and marketing, manufacturing/operations strategy, decision makings in global operation, supply chain management, and service sciences among others. The journal welcomes the submission of rigorous and scientific research papers using any research paradigm such as social science, case study, and mathematical modeling.

Access to Osaka City University

3-3-138 Sugimoto, Sumiyoshi-ku, Osaka-city, 558-8585 Japan

■From Kansai Airport：1 hour

Take a train of JR line (Kansai Airport Rapid Service) from Kansai Airport Station.
Get off at JR Sakai-shi Station and take a local train going to Tennoji.
Get off at Sugimoto-cho Station.
(Please refer to the Simple map 1 below.)

■From Osaka Domestic Airport(Itami)：1.5 hour

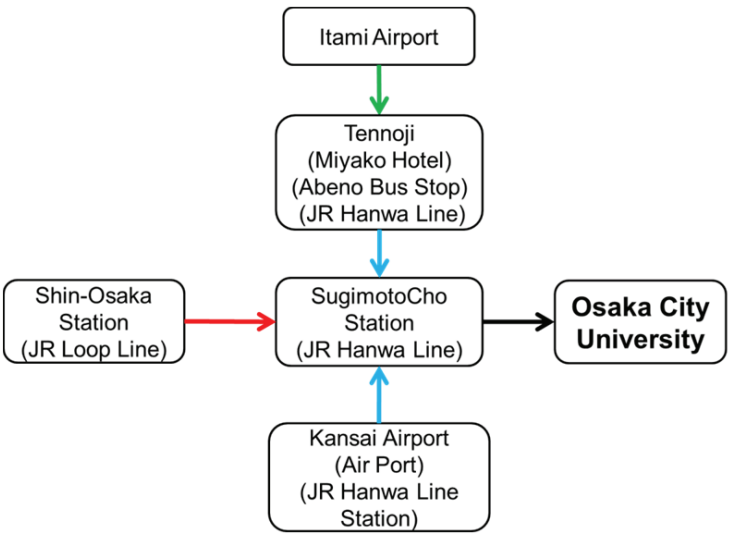
Take Airport Shuttle Bus to Abenobashi Station and take a local train by JR Hanwa Line from Tennoji Station.
Get off at Sugimoto-cho Station.
(Please refer to the Simple map 2 below.)

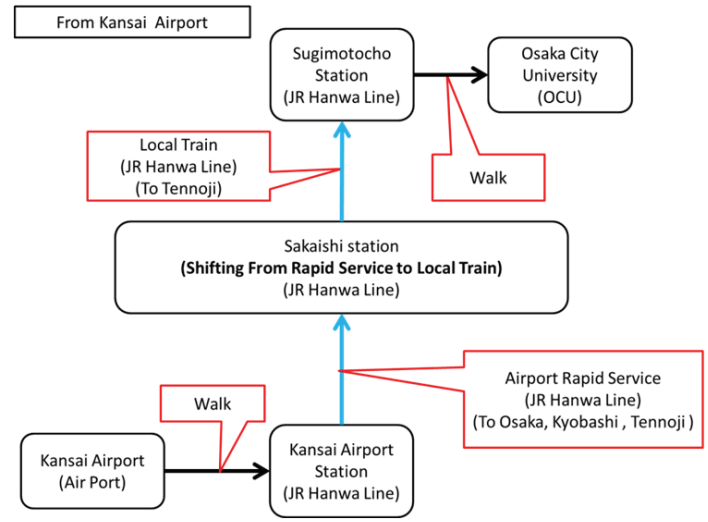
■From Tennoji：30 minutes

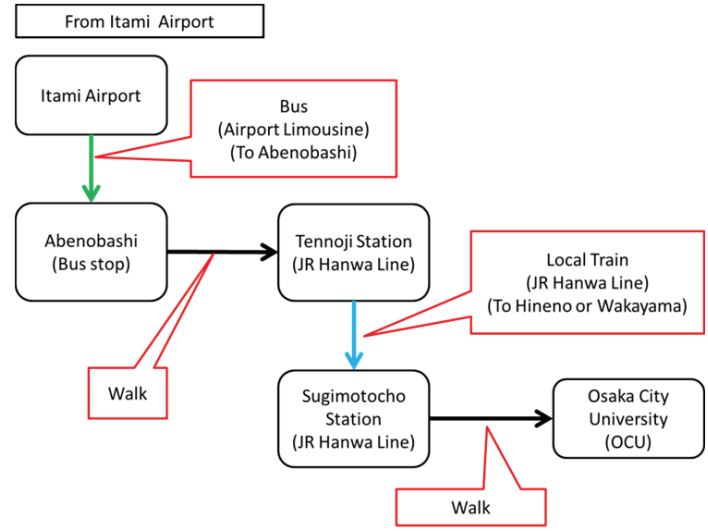
Take a local train on the JR Hanwa Line from Tennoji Station.
Get off at Sugimoto-cho Station.
(Please refer to the Simple map 3 below.)

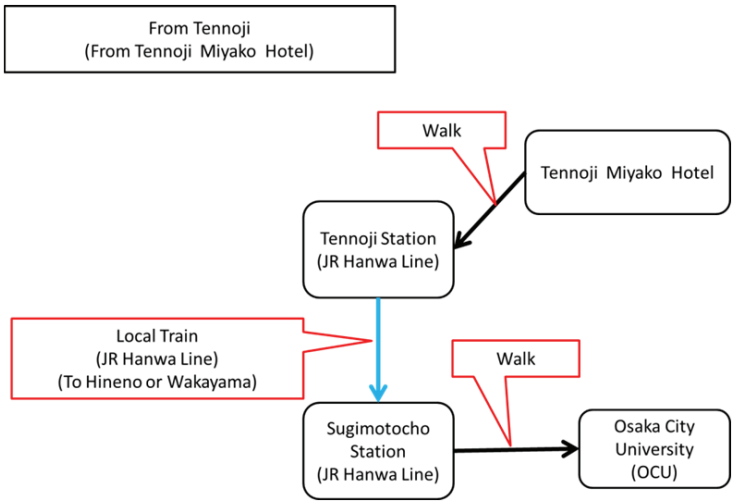
■From Shin-Osaka Station：50 minutes

Take a train of JR line from Shin-Osaka Station to Osaka Station.
Change to JR loop line at Osaka Station going to Tennoji Station.
Then, change to JR Hanwa line going to Sugimoto-cho Station.




From Kansai Airport
Sugimotocho Station (JR Hanwa Line)
Osaka City University (OCU)
Local Train (JR Hanwa Line) (To Tennoji)
Walk
Sakaishi station
(Shifting From Rapid Service to Local Train)
(JR Hanwa Line)
Airport Rapid Service (JR Hanwa Line) (To Osaka, Kyobashi , Tennoji)
Walk
Kansai Airport (Air Port)
Kansai Airport Station (JR Hanwa Line)


From Itami Airport
Itami Airport
Bus (Airport Limousine) (To Abenobashi)
Abenobashi (Bus stop)
Tennoji Station (JR Hanwa Line)
Local Train (JR Hanwa Line) (To Hineno or Wakayama)
Walk
Sugimotocho Station (JR Hanwa Line)
Osaka City University (OCU)
Walk


From Tennoji (From Tennoji Miyako Hotel)
Walk
Tennoji Miyako Hotel
Tennoji Station (JR Hanwa Line)
Local Train (JR Hanwa Line) (To Hineno or Wakayama)
Walk
Sugimotocho Station (JR Hanwa Line)
Osaka City University (OCU)

From Shin-Osaka

Shin-Osaka Station (Shinkansen)

Take a train in 7 or 8 platform

Osaka Station (Transfer inside of JR line)

Take a train of JR loop line

Tennoji Station

Take a train of JR Hanwa line

Walk

Osaka City University (OCU)

Tennoji Station

JOMSA 第5回全国研究発表大会 組織一覧表

役職	氏名	所属
実行委員長	太田雅晴	大阪市立大学
	松尾博文	神戸大学
実行副委員長	天坂格郎	青山学院大学
	富田純一	東洋大学
	松井美樹	横浜国立大学
	森田道也	学習院大学
企画・運営委員	北中英明	拓殖大学
	黒須誠司	早稲田大学
	佐藤亮	横浜国立大学
	田中伸英	学習院大学
	三品勉	秋田県立大学
実行委員	伊藤一	小樽商科大学
	伊藤宗彦	神戸大学
	上田泰	成蹊大学
	海老根敦子	駿河台大学
	開沼泰隆	首都大学東京
	梶原武久	神戸大学
	河野宏和	慶應義塾大学
	河合亜矢子	高千穂大学
	倉田久	筑波大学
	郭沛俊	横浜国立大学
	児玉充	日本大学
	佐藤修	東京経済大学
	白田由香利	学習院大学
	島田智明	神戸大学
	鈴木尚通	松本大学
	松川弘明	慶応義塾大学
	高橋裕	専修大学
	田中正敏	松本大学
	田名部元成	横浜国立大学
	中野剛治	東洋大学
	野町直弘	アジル アソシエイツ
	藤野直明	野村総合研究所
	細田高道	青山学院大学
	増田靖	慶応義塾大学
	松浦峻	慶応義塾大学
	南知恵子	神戸大学
	宮下和雄	産業技術総合研究所
	山路学	早稲田大学
	山田尚志	国士舘大学
	崔 宇	岐阜経済大学
	川村尚也	大阪市立大学
	古賀広志	関西大学
編集スタッフ	柳澤一馬	青山学院大学
	小泉香織	青山学院大学
	奥冨浩隆	青山学院大学
	高木修一	大阪市立大学

Third ISOMS 2013 Organization

Organizing Committee

Chair : Hirofumi Matsuo (Kobe University, Japan)

Co-Chair : Masaharu Ota (Osaka City University, Japan)

Kakuro Amasaka (Aoyama Gakuin University, Japan)
Yoshiki Matsui (Yokohama National University, Japan)
Michiya Morita (Gakushuin University, Japan)
Junichi Tomita (Toyo University, Japan)

Program Committee

Chair : Munehiko Ito (Kobe University, Japan)

Phan Chi Anh (University of Economic and Business - Vietnam National University, Hanoi, Vietnam)
Raffaella Cagliano (Politecnico di Milano, Italy)
Kasra Ferdows (Georgetown University, U.S.A.) Roberto Filippini (University of Padua, Italy)
Barbara Flynn (Indiana University, U.S.A.)
James Flynn (Indiana University, U.S.A.)
Jan Fransoo (Eindhoven University of Technology, Netherlands)
Cheryl Gaimon (Georgia Institute of Technology, U.S.A.)
James Gilbert (Rollins College, U.S.A.)
Jatinder N.D. Gupta (The University of Alabama in Huntsville, U.S.A.)
Sushil Gupta (Florida International University, U.S.A.)
Wallace J. Hopp (University of Michigan, U.S.A.)
Satoshi Kumagai (Aoyama Gakuin University, Japan)
Takamichi Hosoda (Aoyama Gakuin University, Japan)
Yasutaka Kainuma (Tokyo Metropolitan University, Japan)
Takehisa Kajiwara (Kobe University, Japan)
Christer Karlsson (Copenhagen Business School, Denmark)
Ayako Kawai (Takachiho University, Japan)
Hideaki Kitanaka (Takushoku University, Japan)
Mitsuru Kodama (Nihon University, Japan)
Hisashi Kurata (University of Tsukuba, Japan)
Seiji Kurosu (Waseda University, Japan)
Hau Lee (Stanford University, U.S.A.)
Jose Machuca (The University of Seville, Spain)
Hiroaki Matsukawa (Keio University, Japan)
Peter Milling (University of Mannheim, Germany)
Chieko Minami (Kobe University, Japan)
Tsutomu Mishina (Akita Prefectural University, Japan)
Hajime Mizuyama (Aoyama Gakuin University, Japan)
Hisashi Onari (Waseda University, Japan)
Masaharu Ota (Osaka City University, Japan)
Noritomo Ouchi (Aoyama Gakuin University, Japan)
Jaume Ribera (IESE Business School, Spain)
Hirohisa Sakai (Toyota Motor Corporation, Japan)
Brooke Saladin (Wake Forest University, U.S.A.)
Osam Sato (Tokyo Keizai University, Japan)
Ryo Sato (Yokohama National University, Japan)
Tomoaki Shimada (Kobe University, Japan)
Yukari Shirota (Gakushuin University, Japan)
Rui Sousa (Catholic University of Portugal, Portugal)
Rita Araúz-Takakuwa (Technological University of Panama, Panama)

Editorial Staff

The 3rd International Symposium on Operations Management and Strategy 2013

Abstracts

■Saturday, June 1, 2013, 3:30 pm - 5:00 pm

■A1 Session (Room 844): Sustainability Management

Chair: Katsuhiko Kokubu and Takehisa Kajiwara (Kobe University)

A1-1 Stakeholder Influence on the Adoption of Assurance and Third Party Comment on Sustainability Reporting: Evidence from Japan

Mohammad Badrul Haider, Kobe University
Katsuhiko Kokubu, Kobe University
Kimitaka Nishitani, Kobe University

While sustainability reporting (SR) has become a common phenomenon among the world's leading companies, a good number of companies also adopt assurance on such non-financial reporting in order to enhance the credibility of information provided. Japan offers an important opportunity to investigate the assurance practice where almost all the big companies publish SR. In Japan, the adoption of assurance in SR was 26% in 2002, and then increased to 31% before declined to 24% and 23% in 2008 and 2011 respectively. Another important feature of the Japanese companies is the adoption of 'third party comment' (TPC here after) in their reporting instead of or in addition to formal assurance, as KPMG (2008) shows that over 54% of the companies have issued reports with such commentaries. The objective of this study is to explore the corporate level determinants of adoption of assurance and/or TPC in SR in Japan. Stakeholder theory is used to examine the influence of a number of stockholders and consumers on the decision to adopt such third party services. Regression result shows that ownership by financial institutions, foreign investors and final consumers have strong preference to publish SR with assurance and TPC. Company size, industry category and financial performance also have influence on the corporate decision to adopt voluntary assurance and/or TPC in SR. This is the first known study to examine the emerging practices of assurance in SR in Japan.

Keywords: Environmental Management, Sustainable Supply Chain and Environmental Issues, Sustainability Reporting, Assurance, Third Party Comment

A1-2 MFCA Management to Establish Sustainable Corporate Management

Michiyasu Nakajima, Kansai University
Asako Kimura, Kansai University
Shoji Oka, Kansai University

Material Flow Cost Accounting (MFCA) has been developed into Sustainable Management since it was introduced to Japan in 2000, when MFCA was first used as a new process improvement tool known as Kaizen in Japanese companies. Nowadays, MFCA has become popular in Japanese companies for helping to improve material inefficiency in the production process. But we find that many companies have not tried to reduce any material losses. According to our research in Japanese companies, there are two types of material losses as far as MFCA is concerned. One is the material loss to be reduced by relatively simple Kaizen; the other is the material loss to be reduced by relatively difficult innovation and investment in the medium- and long-terms. In some companies, the former is easy to reduce by taking action to improve the management, while the latter is difficult and impossible to reduce through Kaizen.

This research shows some subjects and approaches to developing MFCA into MFCA management that can help to make process innovation in a company. For example, we examine integration MFCA with the existing management tool as BSC, and show the usefulness of MFCA data to other management section. We try to establish sustainable management framework to integrate MFCA with BSC. On the other hand, MFCA shows other two types of material losses from different viewpoint of MFCA. One is the material loss that is generated by own management decision-making; the other is the material loss that is generated by business rule and custom with supplier or customer. In order to reduce the latter material loss, we try to analyze relationship between buyer and supplier by questionnaire research, from viewpoint that MFCA is relevant to supply chain management. We will show the future subjects to use MFCA methodology in supply chain management.

Keywords: Environmental Management Accounting, Production Management, Supply Chain Management

A1-3 Green Supply Chain Management and CO_2 Emissions Performance in Japanese Manufacturing Firms

Kimitaka Nishitani, Kobe University
Katsuhiko Kokubu, Kobe University
Takehisa Kajiwara, Kobe University

The focus of corporate environmental management has shifted from individual firms to supply chains, and so-called green supply chain management (GSCM). This study analyzes the influence of GSCM on their own CO_2 emissions performance, and the difference in the influence among firms in different industries. The estimation results found that although firms introducing GSCM in general are unlikely to emit less CO_2 or reduce their emissions more, those in machinery assembling industries are more likely to emit less CO_2 and those in materials processing industries are more likely to reduce CO_2 emissions more.
Keywords: Green Supply Chain Management, CO_2 Emissions Performance

■Saturday, June 1, 2013, 15:30 am - 17:00 pm

■B1 Session (Room 845): Healthcare Operations Management

Chair: Takaya Kawamura (Osaka City University)

B1-1 **Improving Chronic Rhinitis through Self-care**

Yu-Cheng Hsiao, Takming University of Science and Technology

The causes of chronic rhinitis and sinusitis are poorly understood and may include allergy and environmental factors such as dust, pollution, bacterial infection, and fungus. Roughly, ninety percent of adults have had chronic rhinitis or sinusitis at some point in their lives. Children (6 to 8 years old) in Taiwan had the chronic rhinitis prevalence at 39.8%, and 34.5% of males (19 to 65 years old) in Japan had the chronic rhinitis symptoms. This study investigates the self-care physical therapy (hand massage) to improve the nasal health. Case reports are represented to illustrate the benefits of the self-care physical therapy.

Keywords: Healthcare Operations, Chronic Rhinitis, Self-care, Physical Therapy

B1-2 **Success Factors for Process Innovation and Development of Wheelchair for Dogs with Two Disabled Hind Legs**

Nuttachart Chansangsri, Chulalongkorn University
Natcha Thawesaengskulthai, Chulalongkorn University

During the recent years we have seen that the wheelchair for dogs with two disabled hind legs remains the same in its structure and performance. The dogs with two disabled hind legs are increasing. The equipment for dogs must satisfy increased compliance requirements. This study is based on the literature review and survey research and focuses on process innovation and development of wheelchair for dogs with two disabled hind legs. As an issue of medical equipment for disabled dogs or dog walker for the disabled in Thailand, there are only a few manufacturers and the lack of development of materials and technology to produce the real demand for domestic consumption. As a result, this research has found the factors that affect the real needs of the development of this device and that help in developing innovative processes for the device for Animal Hospital, private pet clinics and entrepreneurs.

Keywords: New Product and Process Development, Management of Technology and Innovation, New Product Development, Process Innovation, Wheelchairs Innovation Development

B1-3 **An Institutional Approach to the Studies of Professional Organizations: A Case Study on the Institutionalization of New "Expert" Nurse in Japan**

Maho Tanaka, Osaka City University
Takaya Kawamura, Osaka City University

This paper aims at proposing a framework for empirical studies on the transformation of division of labor in professional organizations from the perspective of institutional approaches to organization studies (Lawrence & Suddaby, 2006; Seo & Creed, 2002; Scott, 2008). After briefly reviewing the extant studies of professions and professional organizations, it suggests the possibility of studying professional organizations from the perspectives of institutional approaches with a focus on recent discussions on institutional changes. It then analyzes empirical data of the institutionalization process of new "expert" nurses in Japan. Although being not yet officially legislated, the licensing of new "expert" nurses in Japan has been discussed at governmental committees since 2007 based on the results of pilot studies on their special education and working at hospitals. Partially modeling after "nurse practitioners" in the US, they are expected to serve as organizational medical practitioners with an "expanded" jurisdiction beyond that of Japanese nurse, which has long been very limited compared with nurses in other advanced countries. As an empirical study of the on-going institutionalization process, it first analyzes the proceedings of governmental committees, which have been discussing the qualifications, jurisdictions, and licensing of

new “expert” nurses. It aims at revealing the macro power politics among the interested parties including the government, professional associations of medical doctors (MDs) and nurses, hospital managers, and nursing schools. It then analyzes data from direct observation and archival studies on the governmental pilot studies of qualified candidates for the new “expert” nurses. Although being supported by hospital management, who have voluntarily participated in the pilot study proposed by the government, these candidates working at Japanese hospitals have already been involved in the micro power politics of jurisdictional competition and reproduction, and facing conflicts with co-medicals, and incumbent nurses. Finally, it proposes a framework for empirical studies to reveal how new “expert” nurses build, change and maintain their professional identities in the professional organizations.
Keywords: Healthcare Operations, Professional Organization, Institutional Approach, Activity Theory

■Sunday, June 2, 2013, 9:00 am – 10:30 am

■A2 Session (Room 844): Quality and Knowledge Management in Operations

Chair: Rita Arauz-Ktakakuwa (Technological University of Panama)

A2-1 An Explorative Study on a Correlation between Quality-Creating Performances and Intra-Organizational Communication

Atsuko Ebine, Surugadai University

Two data sets of worldwide field research on high performance manufacturing plants, taken before and after an interval of 10 years in the end of the 20th century, are analyzed. A possible contribution of intra-communication activities to quality-creating performances at a manufacturer is investigated. A two-step approach is tried; static analyses are performed at first, and then the research is extended to analyses of time-dependent phenomena. The first study is to reinforce the preceding static studies on the "parallel gap phenomenon" in intra-organizational communication and quality-creating performances. The second study is a trial study to analyze the time-dependent behaviors of intra-organizational communication activities and quality-creating performances for 24 Japanese plants. As the result of analyses, the static and dynamic features are clearly observed; the quality-creating performances significantly depend on the intra-organizational communication activities at manufacturers. A good state of intra-organizational communication may lead an effective management of the quality-creating activities in organizations to achieve the high level of quality-creating performances.
Keywords: intra-organizational communication, quality-creating performance, manufacturers

A2-2 How the Knowledge Base Structure Impacts Knowledge-related Outcomes of a Firm

Yoichi Matsumoto, Kobe University

Knowledge is the preeminent resource of a firm. Although many scholars have focused on the firm's knowledge base, few studies have examined the effects of the knowledge base structure—how knowledge elements are linked or separated from each other in clusters—on firm's knowledge-related outcomes. This study examines the knowledge base structure, and tests hypotheses about the effects of heterogeneous combinations of knowledge elements on the outcomes. Through an analysis of the patents related to LCD technology, (1) the usefulness of an organization's inventions correlates positively with the density of the knowledge links between technologically different knowledge components, (2) the average usefulness of a firm's inventions correlates positively with the density of the knowledge links between technologically disparate knowledge components, (3) the number of inventions correlates negatively with the density of the knowledge links between excessively disparate knowledge components.
Keywords: Innovation, Knowledge Base, Liquid Crystal Displays

A2-3 Evaluation of Productivity Measurement and Quality in Manufacturing Sector: Worldwide Phenomena

Muhammad Rafid Mahmood, Centre for Advanced Studies in Engineering, Pakistan
Muhammad Daniel Pirzada, Centre for Advanced Studies in Engineering, Pakistan
Farah Hayat, Centre for Advanced Studies in Engineering, Pakistan
Usama Bin Perwez, Centre for Advanced Studies in Engineering, Pakistan

The purpose of this study is to examine the impact of productivity and quality in the performance evaluation of manufacturing sector. The aim is to show the importance of productivity and quality in present global environment. In this study, variables which affect the productivity is taken into account, and key performance indicators are pointed out to improve overall manufacturing operations. The sorting technique has been adopted to analyze the surroundings occurring in manufacturing sector. This paper also attempts to discuss theoretical frameworks which lead to the implementation of QM practices at

organizational level. The result of this study can be used to establish the standard factors, quality and its correlation with productivity, which play important role in increasing productivity in this sector.
Keywords: Productivity, Quality, Manufacturing Organization

A2-4 The Impact of Knowledge Management on the Quality of Logistics Operations in Panama

Rita Arauz-Takakuwa, Technological University of Panama

This research analyzes the quality of logistics operations in terms of the impact exerted by knowledge management variables; explicitly, knowledge generation, knowledge dissemination, knowledge interpretation and knowledge responsiveness. Our research hypotheses are that the quality of logistics operations depends directly on knowledge responsiveness, and that knowledge generation influences knowledge dissemination, which influences interpretation of knowledge. This last variable impacts knowledge responsiveness. A questionnaire survey is designed to collect data among companies conducting logistics operations in Panama, Central America. In order to test the hypotheses, we first validate the measurement instruments through content analysis, reliability and validity tests. The statistical data analysis includes t-test of the means, factor analysis, and regression. The results should provide useful information regarding the quality of logistics operations and its dependence on knowledge management. This is important for academia as wells as industry; on one side the research hopes to offer a contribution to the existing logistics operations literature regarding the relationship between the variables under study, and on the other side companies will have useful information for decision making.
Keywords: Logistics Operations, Knowledge Management, Quality

■Sunday, June 2, 2013, 9:00 am – 10:30 am

■B2 Session (Room 845): IT Application to Operations and Service

Chair: Hiroshi Koga (Osaka City University)

B2-1 Effect of IT-enabled Supply Chain Process Integration on Firm's Operational Performance

Odkhishig Ganbold, Yokohama National University
Yoshiki Matsui, Yokohama National University

Many researchers in areas of information systems and operations management have discussed extensively on a critical role that information technology plays in managing supply chain activities and partnerships to enhance firm's performance. Due to uncertain direct effect of information technologies on supply chain performance, previous literature tried to explain how and why information technology can improve firm's performance in a supply chain context focusing on external integration with suppliers and customers. In the supply chain integration literature, researchers are inclined to focus on external integration predominantly neglecting the integration within firms. Thus, the objective of this study is to find out if software applications integration impacts a firm's operational performance through both internal and external processes integration.
Keywords: IT Applications to Operations and Supply Management, Supply Chain Strategy, Supply Chain Process Integration, Information Technology

B2-2 Effect of Quality on Learning Effectiveness, Learning Intention and Learning Satisfaction

Wei Yu Yang, Takming University of Science and Technology
Yun Kuei Huang, Takming University of Science and Technology

The communication technology, computer and other information technology progress have impacted and changed the dissemination of information and personal learning (Njagi 2003). Jay Cross first proposed e-learning in 1999 that set off the enthusiasm of business and school in e-learning (Internet Time Blog, 2007). In the 21st century, e-learning has continued to grow in higher education institutions at an alarming rate and gradually being taken seriously (Anderson, 2003; Liao & Lu, 2008).

In Hoffman & Schraw (2009), learning effectiveness is based on the minimum of time spent, effort or cognitive resources to achieve established learning objectives. In Kolfschoten et al. (2010), learning effectiveness for novice learners is to acquire skills and knowledge to enable them to perform tasks like a professional. In Guglielmino (1977), learning intention means that individuals can trigger independent continuous learning, arrange appropriate learning steps, develop learning plans and take advantage of time to complete. In Hoyt (1973), the learner with stronger learning intention produces satisfactory experience in learning activities. In Piccoli, Ahmad & Levs (2001), revealing and understanding the learning satisfaction make it possible to evaluate and predict learners in the future possibilities and opportunities in similar learning styles.

Delone & McLean (1992) proposed that the information quality available to learners of e-learning has a positive correlation with the value of their learning experience. Bharati (2002) mentioned that the ease of use, convenience of access and system reliability to assess system quality have a positive effect on the work support satisfaction. Cronin, Brady & Hult (2000) pointed out that the first line of customer service in the service encounter plays an important role to influence customer perceptions. Sale staffs' expertise and attitude help customers have good service experience in services (Baker et al, 2002). Therefore, the study suggests that information quality, system quality, and service quality in e-learning center affect learning effectiveness, learning intention and learning satisfaction.

In this study, we explore Taiwan Knowledge Bank's (the biggest e-learning service center in Taiwan) e-learning course, and use its students as a sample. We develop scale to measure information quality, system quality and service quality in relation to learning effectiveness, learning intention and learning satisfaction. The results can be used as reference in the promotion of e-learning as other businesses or education institutions.

Keywords: e-Operations, e-Commerce, e-Business e-Learning, and e-Government, e-learning

B2-3 **Indirect Effect of Information Systems on Inventory Turnover: An Empirical Analysis**

Osam Sato, Tokyo Keizai University
Yoshiki Matsui, Yokohama National University
Tomoaki Shimada, Kobe University
Hideaki Kitanaka, Takushoku University
Yutaka Ueda, Seikei University

Many plants have employed a variety of information systems (IS) to streamline business. We believe informatization, which is employment of information systems to business, must have a significant effect to improve performance. However, empirical endorsement of the effect is not many in academic papers. It comes from many reasons. We studied effect of IS to inventory turnover performance statistically. We employed a set of data that were collected from 9 industrialized countries worldwide from 2003 to 2005 to study some hypotheses. Our study result supports significant effect of master production scheduler, material resource planning, and inventory control systems on some tactics for supply chain management, which in turn determine SCM capability. The SCM capability affects again to inventory control (turnover) performance. Recommendations to managers and academics stemming from our study are provided, along with avenues for future research.
Keywords: Inventory Turnover Performance, Information Systems, Supply Chain Management

B2-4 **On the Formation Process of IT Capability: From the Viewpoint of an Actor Network Theory**

Hiroshi Koga, Kansai University

In this research, an actor network theory is applied to clarify the formation process of IT capability. IT changes the structure of decision making of a company and changes the way of dealings. At this time, continuous efforts on operations of the field are indispensable like QC or kaizen activity in improvement of the structure of decision making or dealings. In other words, as a result of organizational efforts toward the sustainable improvement of key performance metrics, IT capability is built. The process of such efforts is philosophical indeterminism.

The purpose of this paper is to discuss the process of such organizational efforts. The research question of this paper is as follows: Does the formation process of IT capability include the unintended result or contingency? In order to resolve this question, this paper takes the following organization. First, the concept of IT capability is surveyed. Next, the view of the actor network theory is explained as a framework for analyzing the formation process of IT capability. Then, the actor network theory is applied to an example of Japan's distribution industry called “TABIO,” and the formation process of IT capability is explained. At the last, it discusses the implications of this case analysis.
Keywords: IT capability, operation excellence, actor network theory, Improvisation

■Sunday, June 2, 2013, 1:00 pm - 2:30 pm

■A3 Session (Room 844): Marketing and Operations Interface

Chair: Kakuro Amasaka (Aoyama Gakuin University)

A3-1 **A Study of Eco-Friendly Products Encouraging Consumers to Take Eco-Friendly Actions**
Meiko Bannai, Aoyama Gakuin University
Tomoko Kajiyama, Aoyama Gakuin University
Noritomo Ouchi, Aoyama Gakuin University

As awareness of environmental issues has increased, a variety of eco-friendly products have been released. In order to achieve sustainable growth, it is required for consumers not only to use eco-friendly products but also to take eco-friendly actions. However, firms have developed eco-friendly products focusing only on reducing the environmental burden of products. On the other hand, little attention has been given to develop eco-friendly products encouraging consumers to take eco-friendly actions. The purpose of this study is to examine what types of eco-friendly products can encourage consumers to take eco-friendly actions. We investigated some eco-friendly products and analyzed characteristics functions. This study provides suggestions to develop a new type of eco-friendly products which incorporate the functions encouraging consumers to take eco-friendly actions.
Keywords: Environmental Management, Management of Technology and Innovation, Eco-friendly Products, Eco-friendly Actions, Environmental Awareness

A3-2 **Importance of Vendor and Manufacturer Relationship for Effective Lean Practices**
Muhammad Rafid Mahmood, Centre for Advanced Studies in Engineering, Pakistan
Irfan Manarvi, Centre for Advanced Studies in Engineering, Pakistan

Lean manufacturing system focuses on maximizing the products and minimizing the waste. The extensive use of lean manufacturing system in organizations has led to an improved relationship between supplier and manufacturer. With the change in the economy, relationship between the vendor and manufacturer is facing crisis. The conflicts in manufacturer vendor relationship have affected the supply chain cycle. This research has analyzed the weakness in the supply chain cycle. The factors that affect the supply chain cycle are discussed in detail. Moreover the paper focuses on some of the major techniques and strategies to work in an environment with lean manufacturing system and proposes some feasible solutions to strengthen the supply chain cycle by improving the vendor manufacturer relationship.
Keywords: Lean Manufacturing System, Just-In-Time Production, Vendor, Mmanufacturer, Supply Chain Cycle

A3-3 **Decision Making Factors for the Potential Small and Medium Enterprise (SME) Exporters**
Dollawit Budcharoentong, Chulalongkorn University
Thanawan Sangsuwan, Chulalongkorn University
Achara Chandrachai, Chulalongkorn University
Chaipat Lawsirirat, Chulalongkorn University

Currently, the international trade plays an increasingly significant role in global economy, driving higher standard of living through employment and job creation in both developing and developed counties. It brings about not only the opportunities but also the obstacles for the new firm to enter the international market. The understanding of the factor that affects the decision to export is the most important step to go outside the home country, especially for the Small and Medium Enterprise (SME) exporters. Therefore, the study based on the literature review focuses on exporter characteristic, firm situation, and domestic and international market environment. As a result, the research found that there are some factors which affect the exporter to make a decision to go abroad.
Keywords: International Firm, Small and Medium Enterprise (SME) Exporter, Decision Making Factors.

A3-4 Constructing a Scientific Mixed Media Model for Boosting Automobile Dealer Visits: Evolution of Market Creation Employing TMS

Kakuro Amasaka, Aoyama Gakuin University
Motoi Ogura, Aoyama Gakuin University
Hisatoshi Ishiguro, Aoyama Gakuin University

In this paper, the authors discuss the evolution of automobile market creation employing a "Total Marketing System" (TMS) as a core technology of New JIT, which contributes to constructing a Scientific Mixed Media Model (SMMM) for boosting automobile dealer visits. More concretely, the authors develop and validate the effectiveness of putting together four core elements (Video that Unites Customer behavior and Manufacturer Design Intentions (VUCMIN), Customer Motion Picture–Flyer Design Method (CMP-FDM), Attention-Grabbing Train Car Advertisements (AGTCA), and Practical Method using Optimization and Statistics for Direct Mail (PMOS-DM)) into a new strategic advertisement method designed to enhance marketing and the desire in the automotive industry. This model is applied to a dealership representing a well-known automaker, where its effectiveness is verified.
Keywords: Automobile Market Creation, Scientific Mixed Media Model (SMMM), Total Marketing System (TMS)

■Sunday, June 2, 2013, 1:00 pm - 2:30 pm

■B3 Session (Room 845): Mathematical Models for SCM

Chair: Wenyih Lee (Chang Gung University)

B3-1 **Risk-Averse Newsvendor Model in the Manufacturer-retailer Interactions under the Mean-risk Criterion and the Conditional Value-at-Risk Criterion**
Shota Ohmura, Kobe University

To share the risk and return between the supply chain partners is an important theme in supply chain management (SCM). There exists the extensive literature on the supply chain coordination, especially on the design of contracts that align the incentives of supply chain partners. However, few studies address the effect of risk attitude upon the coordination, and most of them are dealing with a risk-averse player within the context of a single player model. In order to coordinate supply chain, it is valuable to investigate how the risk attitudes of supply chain partners affect the supply chain relationships.

In this paper, we consider the decentralized supply chain consisting of a risk-averse retailer and a risk-averse manufacturer who are concerned with only their own objectives. The decentralized supply chain is facing an uncertain market demand and dealing with a single product over a single period. We show complex effects of risk aversion on the manufacturer-retailer interaction numerically. We also drive analytical results as much as possible. The risk models analyzed in this paper are the mean-variance (MV) model, the mean-standard deviation (MS) model, and the conditional value-at-risk (CVaR) model. We show that the dynamics of interaction is different depending on the risk measurement used in the analysis.
Keywords: Risk-Averse Newsvendor Model, Conditional Value-at-Risk (CVaR), Supply Chain Coordination

B3-2 **Optimal Policy in Hybrid Manufacturing/Remanufacturing System**
Yasutaka Kainuma, Tokyo Metropolitan University

We propose a cascade parts reuse model for a hybrid manufacturing/remanufacturing environment and address production and environmental issues in a closed-loop supply chain system. We develop an optimal parts ordering policy that minimizes the total manufacturing cost when two grades of products are manufactured. In the proposed model, the total manufacturing cost includes parts ordering cost, products holding cost, and opportunity loss cost. We formulate the ordering quantities of new and reused parts as a newsvendor problem. Through a numerical example, we compare the proposed model with the policy of a company, and confirm the optimality of the proposed model. We conclude that the proposed optimal ordering policy is more efficient for a known demand distribution, ordering cost, and holding stock quantity.
Keywords: Cascade Reuse, Hybrid Manufacturing/Remanufacturing, Closed-Loop Supply Chain

B3-3 **Cope with Uncertain Customer Demands by Using Seru Production System**
Yong Yin Yamagata University

We introduce a highly flexible manufacturing organization, seru, which was developed to cope with shorter product life-cycles, uncertainty in product types, and fluctuating production volumes (sometimes mass, sometimes batch, and sometimes very small volumes). We construct a dynamic seru system model to maximize expected company profit under stochastic production demands and uncertain product types. A convergent stochastic algorithm is used to find a stable solution. A large number of numerical examples are used to test the algorithm and find managerial insights behind the dynamic seru production system.
Keywords: Marketing and Operations Interface, Mass Customization and Modularization, Flexibility, Assembly, Stochastic Model

B3-4 Reticle Floorplanning for the Multiple Project Wafer Service with the Constraint of MWSRC Die-sawing Method

Wenyih Lee, Chang Gung University
Sheng-Pen Wang, Chang Gung University
Kai-Wen Teng, Chang Gung University

Multiple project wafer (MPW) fabrication, also called shuttle mask program, is a win-win mechanism for both the supplier and the customers. Principally, MPW service partitions a reticle formed by one set of masks into several parts and let customers to purchase the parts according to the dimension of their verified IC designs. In other words, the MPW service assists a number of customers who join the MPW service program to share one set of masks by means of placing their IC designs in the same reticle. With the remarkably advanced reticle enhancement technologies and the skyrocketing mask cost, the MPW service has been prevalent these days. To make their services more competitive, suppliers of MPW service have to try their best efforts to lowering the mask cost. Therefore, this research proposes a ladder-based floorplanning heuristic to help MPW service suppliers decrease the wafer cost. The proposed heuristic permits arranging chips divided into at least three groups in a reticle according to the combinations of metal layers of masks, the thicknesses of top metal layer, the processes, and the thicknesses of chips. Moreover, the proposed algorithm considers the Multiple Wafer Single Row-Column (MWSRC) die-sawing method as a constraint. The proposed heuristic was applied to ten cases from the case company, and the outcomes indicate that the proposed ladder-based floor-planning spent 20% to 47.06% less on wafers needed than the previous floor-planning employed by the case company.

Keywords: Business Models for Manufacturing Systems and Services, Project Management, Multi-project Wafer, Floorplanning

■Sunday, June 2, 2013, 2:45 pm - 4:15 pm

■A4 Session (Room 844): Manufacturing and Supply Chain Strategy

Chair: Hirofumi Matsuo (Kobe University University)

A4-1 The Differential Effects of Internal and External Customer Orientation Approaches on B2B Customer Value Creation in New Product Development

Dinush Chanaka Wimalachandra, Tokyo Institute of Technology
Bjoern Frank, Tokyo Institute of Technology
Takao Enkawa, Tokyo Institute of Technology

While the importance of customer value creation has been investigated in numerous studies in the literature, there is a lack of empirical studies on how to create different types of customer value in new product development. Customer value creation can be conceptualized as a value- adding process on a linear path from raw material suppliers to end customers. B2B customer orientation is vital to this process. A conceptual framework is developed considering four dimensions of B2B customer value (functional, cost, hedonic, and symbolic) and two dimensions of B2B customer orientation: internal approach (customer information management, customer needs focus) and external approach (communication frequency, informal communication). In this manner, this paper explores the decomposed effects of B2B customer orientation approaches on the creation of each type of B2B customer value. Based on a questionnaire-based survey, data were collected from 246 textile and apparel industry experts representing 115 CBUs (customer business units) in 10 countries across the supply chain. Using hierarchical linear modeling, this study finds that the internal customer orientation approaches of B2B cognitive information management and B2B responsive needs focus both positively affect the creation of B2B functional and B2B cost value. By contrast, the external customer orientation approaches of B2B affective information management and B2B proactive needs focus positively affect the creation of B2B hedonic and B2B symbolic value. Results also show that the effects of the external customer orientation approach of B2B communication frequency on B2B functional and B2B cost value creation are higher when B2B affective information management and B2B proactive needs focus are more pronounced. Several theoretical contributions and managerial implications are discussed.
Keywords: B2B Customer Value, Internal Customer Orientation, External Customer Orientation

A4-2 The Capability of Inter-functional Product Development for Effective Integration of Product and Supply Chain Strategies

Michiya Morita, Gakushuin University
E. James Flynn, Indiana University
Jose A. D. Machuca, University of Seville
Shigemi Ochiai, Jonquil Consulting, Inc.

Product strategy is concerned with the decisions on product values and potential customers of those values. Supply chain strategy that includes manufacturing is concerned with the decision on the basic way to supply the values to the customers physically. Business strategy integrates these two strategies effectively to maximize returns from the provision of the values. In this study we propose that such effective integration of these two strategies assumes a managerial culture, which is characterized by the emphasis on supply chain management initiatives, perpetually seeking for lead time reduction, just-in-time replenishment, quality conformance and improvement and demand stability. Then we emphasize the capability to make an effective inter-functional product design and development as a litmus test of the high performance manufacturing companies that can conduct the well-integrated business strategic behavior over time. Our study is based on experimental as well as theoretical methodologies.
Keywords: Business Strategy, Supply Chain Strategy, Product Strategy, Supply Chain Strategy, Inter-functional Product Development

A4-3 Implications of the Tohoku Earthquake for the Supply Chain Coordination Mechanism of Toyota Production System

Hirofumi Matsuo, Kobe University

The 2011 Tohoku Earthquake damaged severely and extensively a large geographical area and caused devastating disruptions to the industrial supply chains in Japan. Because of its extensive and extreme nature of damage, this catastrophe makes it difficult to convincingly discuss how to prepare for this level of disruption. Rather, it reveals some deficiency in the supply chain coordination mechanism of Toyota Production System.

This talk presents a case of supply disruption of the automotive microcontroller units, which are produced by Renesas Electronics and supplied to Toyota via its first tier vendors like Denso. The first purpose of this presentation is to describe, from a supply chain management view point, what happened and what actions these companies took, and to understand why it took three months for Toyota to recover to its pre-earthquake production level. Since many things happened, we apply a framework of SCM hierarchy to sort out the issues from the perspective of execution, design, strategy and sustainability. The second purpose is to identify based on this case analysis what functions are missing in the supply chain coordination mechanism of Toyota Production System, where the coordination is propagating from Toyota to upstream suppliers through the close interaction between the successive layers of its multi-layered supplier network. This case analysis implies that direct control functions need to be added to alleviate the disruption risk and secure the supply of key parts and materials.

Keywords: Supply Chain Strategy. Disruption Risk Management, Automotive Electronics, Toyota Production System

■Sunday, June 2, 2013, 2:45 pm - 4:15 pm

■B4 Session (Room 845): Service Quality and Service Science

Chair: Hajime Mizuyama (Aoyama Gakuin University)

B4-1 Country-Of-Origin and Brand Effects on Consumers' Perceived Risk and Perceived Value: The Case of International Air Travel
Kaede Sano, Doshisha University

As services increase in importance globally, it is necessary for marketers to be aware of which factors affect consumers' purchase behavior and service evaluation. There is a tendency that the effect of Country-Of-Origin (COO) is highlighted in the literature of product than service. However, as intangibility in service is so significant, consumers may tend to rely on other things to evaluate service quality and decrease perceived risk. This study proposes to clarify how country image and brand preference affect consumers' perceived risk and perceived value. This study seeks to find whether a positive COO image compensates for a weak brand, and whether a positive COO image reduces perceived risk and enhances perceived value. International airline service is selected as research object, and a pre-test was conducted in both Japan and China to rate international airline service from eight countries (China, France, German, Japan, Korea, Singapore, Thailand, and The United States). China and The United States scored the lower, whereas Japan and Singapore scored the higher. Although only pre-test has been conducted, there is still a tendency that the effect of COO cannot be neglected.
Keywords: Service Innovations and Service Sciences, Business Strategy, Country-Of-Origin, Brand Effects

B4-2 Product, Service Quality and Customer Value in Business-to-Business Marketing
Towako Sakama, Kobe University

Many manufacturers today try to create value by adding services to products. This study aims to explore the relationships between product quality, service quality and customer value in the business-to-business market. The author empirically tested a model in a sample of 473 medical equipment manufacturers' customers. Findings confirmed that service quality influences product quality and customer value, that information especially has an effect on product quality and customer value, and that product quality influences customer value.
Keywords: Service Quality, Product Quality, Customer Value

B4-3 A Comparison between Choice Experiments and Prediction Markets for Collecting Preference Data in Conjoint Analysis
Hajime Mizuyama, Aoyama Gakuin University

Conjoint analysis provides information on which attributes should be incorporated into a new product under development. It estimates the partial utility that an attribute will bring about into the product based on preference data, and the data are often collected through virtual choice experiments performed by potential customers. However, conducting choice experiments on many participants is a tedious and costly process. Further, it is not easy to properly motivate the participants to express their true preference in the experiments. A potentially effective solution to this issue is to gamify the process of collecting the preference data, and it can be put into practice through prediction markets. Thus, this talk presents how to utilize prediction markets for collecting the preference data for conjoint analysis as well as how to estimate partial utilities based on the data obtained by the markets. Further, conjoint analysis is conducted separately on a simple example problem using choice experiments and prediction markets, and their outputs are compared. As a result, it is confirmed that the both approaches lead us to a similar conclusion.
Keywords: New Product and Process Development, Kansei Engineering, Collective Intelligence, Conjoint Analysis, Prediction Markets

JOMSA 第5回全国研究発表大会

Abstracts

■2013 年 6 月 1 日（土）3:30 pm - 5:00 pm

■C1 JOMSA セッション (846 講義室): New JIT System

座長: 天坂 格郎（青山学院大学）

C1-1 自動車ボルト締結部の緩みメカニズムを捉える高信頼性 CAE 解析モデルの創案
橋本 健（青山学院大学）
小野寺 雄大（青山学院大学）
天坂 格郎（青山学院大学）

本研究では，論者らが確立した高精度 CAE 技術要素モデルを援用し，自動車開発設計においてボトルネックであるボルト締結の緩みメカニズムを捉える高信頼性 CAE 解析モデルを創案し，その有効性を実証した．具体的には，論者らの実機試験によるボルト締結の緩みメカニズム究明の知見を基に，この度，ベンチ実験として自動車会社へのヒアリングを通して，緩みが最も顕著に現れるリジット・リアサスペンション廻りのボルト締結部の緩みを加速試験による3次元振動荷重試験を行い，高精度 CAE 技術要素モデルをもとに CAE 解析にて実機試験を再現した．これらの結果から，ネジピッチ（リード角）が大きいほど，特にナット座面部廻りの面圧が不均一になり，最弱面圧部位から緩みが発生する動的挙動を再現できた．さらに，実機実験と誤差（乖離）のない高精度な CAE 解析を実現し，所与の成果を得た．
Keywords: CAE，ボルト締結部，信頼性

C1-2 高信頼性 CAE を活用した自動車開発設計：駆動系オイルシール摩耗による油漏れ解析
赤岩 亮（青山学院大学）
天坂 格郎（青山学院大学）

論者らは，部品のメカニズムを考慮した CAE を活用する開発設計の確立を考究している．本研究では，世界の自動車メーカーの懸案事項である駆動系オイルシールの油漏れ発生メカニズムを究明する．自動車駆動系オイルシールは，シールゴムリップ先端をドライブシャフト表面と接触摺動させ，駆動歯車箱内に密封された潤滑油が大気側へ流出するのを防止する．本論では，駆動系オイルシールの摩耗による油漏れ発生を例として取り上げる．表現技法として，オイルシールの摺動面状態を数値表現する手法を援用し，オイルシール密封判定シミュレーションに反映する．さらに，論者らの高信頼性 CAE 解析技術要素モデルを援用し，流体のモデルとオイルシール摺動面のモデル，有限要素法等の手法を組み合わる．これらより，CAE を活用した自動車開発設計の確立の一助とする．
Keywords: CAE，オイルシール

C1-3 自動車エクステリアカラーとインテリアカラーのマッチングモデル“ACMM”の創案
篠木 建実（青山学院大学）
相原 早紀（青山学院大学）
天坂 格郎（青山学院大学）

論者らは，自動車の商品開発の発想支援法として消費者の嗜好を捉えた自動車のエクステリアとインテリアカラーのマッチングモデル“ACMM”（Automobile Color Matching Model）を創案する．具体的な研究アプローチとして，まず 20 代女性を対象者として，対象車種を基にアイカメラ，脳波計を使用し，自動車カラーマッチング対象部位の決定を行う．次に，対象者へ顧客嗜好調査を実施し，クラスター分析で嗜好別に対象者を分類し，主成分分析で自動車に求める感性ワード抽出することで対象者の嗜好を解析する．さらに，嗜好グループ別にカラー調査を実施し，得られたデータを数量化理論Ⅲ類で重要色を抽出し，AHP を用いて自動車カラーマッチングを行う．そして創案した“ACMM”の有効性を検証し所与の成果を得た．
Keywords: 自動車デザイン，カラーマッチング，ACMM

C1-4 顧客が求める自動車パンフレットデザインの創出法：生体計測実験と統計科学の併用

小泉　香織（青山学院大学）
武藤　舞子（青山学院大学）
天坂　格郎（青山学院大学）

本研究では，統計科学を援用し（1）顧客が“自動車デザイン”に求める暗黙的なデザイン要素をアイカメラによる視線分析を援用してデザイン要素を可視化する．次に（2）得られた知見を基に“自動車パンフレットデザインの創出”に向けて，“自動車パンフレットデザイン画像の構成要素”を抽出し数値化する．そして（3）これらのパンフレットデザイン画像の構成要素が顧客の感性に与える影響を分析する．これらの分析結果を基に（4）顧客が求める自動車パンフレットデザイン画像を創出し，さらに（5）脳波を用いた検証用生体計測実験を行う事で分析結果の妥当性を確認し，所与の成果を得た．

Keywords: 自動車，デザインアプローチモデル，パンフレット

■2013 年 6 月 2 日（日）9:00 am - 10:30 am

■C2 JOMSA セッション (846 講義室): Manufacturing and Supply Chain Strategy

座長: 倉田 久（筑波大学）

C2-1 人中心の新たな生産の仕組み：統合型ヒューマンマネジメントシステムの構築
酒井 浩久（トヨタ自動車株式会社）
天坂 格郎（青山学院大学）

現今，日本企業は生き残りをかけ，“世界同一品質・同時立ち上げ”の実現に向けて“グローバル生産”を展開している．そのような背景から生産オペレータはこれまでの単純労働作業志向から知的生産作業への変革を求められ，決められた標準作業を実施するだけでなく，自ら考え知恵を出し，自ら“カイゼン”出来るオペレータを早期に育成することが肝要である．彼らをインテリジェンスオペレータと定義し，“高度化生産システム”を使いこなし，製造現場で高品質保証させる”技術・技能(人)の進化”がグローバル戦略の成否を決めると考える．そこで論者らは“グローバル生産”への戦略的運用をねらいとする統合型ヒューマンマネジメントシステム“HI-POS(Human Intelligence -Production Operating System)を創案し，提案できた“HI-POS”の有効性を先進企業トヨタで実証した．
Keywords:グローバル生産，統合型ヒューマンマネジメントシステム，HI-POS

C2-2 BOP 市場ビジネスとその事業戦略展開の順序に関する考察：サプライチェーン戦略の視点
吉岡 孝昭（学習院大学）
森田 道也（学習院大学）

本研究では，製造企業を対象に収集したサーベイデータを使用しながら，国際物流業務や取引の特性が荷主の物流業者に対して行うリスクマネジメントにどのような影響を及ぼすかについて検討を行った．国際物流業務は多大な資源や専門性が必要であるため，多くの企業が，物流業者に対して外部委託を行っている．しかし国際物流には様々なリスクが伴うため，荷主企業は物流企業に対して適切なコントロール活動を行わなければならない．本研究では，取引コスト理論，マネジメントコントロール，リスクマネジメント領域の先攻研究を参照しながら，荷主の物流業者に対するリスクマネジメント手段として，（1）事前契約，（2）取引中のモニタリング，（3）事後対応という3つを認識した上で，国際物流に伴う不確実性，国際物流の戦略的重要性，貨物特性，取引の集中度等の要因が，3つのリスクマネジメント手段に及ぼす影響について理論的な検討を行った上で，サーベイデータによる検証を行った．
Keywords: 事業戦略展開の順序，BOP 市場ビジネス，サプライチェーン戦略

C2-3 海外生産拠点における製造業の品質向上に関する研究：新ベトナム生産モデル“NVPM”の創案

宮下 省吾（青山学院大学）
天坂 格郎（青山学院大学）

現今，ベトナム自動車産業はグローバル化を志向した生産量の拡大と共に，“世界品質競争”に勝ち抜くための生産戦略として，品質マネジメント，生産マネジメント，人材マネジメント，海外自動車メーカーなどの戦略的連携など，新たな課題の克服が求められている．そこで論者らは，将来のベトナム自動車製造業の品質向上の必要性を捉え，日本的生産方式を代表する“トヨタ生産方式”と，現在の“ベトナム生産方式”を新たな視点で統合化する“New Vietnam Production Model，NVPM”を創案する．具体的には，論者らの研究で所与の成果を得ている(i)トヨタ生産方式の進化モデル“Advanced TPS”，(ii)ベトナムに定着している“伝統的ベトナム生産方式，VPS－T”ならびに，近年，海外生産メーカーが展開している“現地化ベトナム生産方式，VPS－L”を実査する．そして，得られた知見をもとに，“Advanced TPS”と VPS－T＆L を知的に統合する“NVPM”を創案する．
Keywords: 自動車，ベトナム，品質管理

C2-4 信用取引契約を考慮したサプライチェーン・コーディネーションの考察

田中　正敏（松本大学）
倉田　久（筑波大学）

本研究では，Chan and Wang(2012)と同じ分析フレームワーク，つまり予算制約を持つ小売業と財務に余裕があり信用取引を行う供給業者から構成されるサプライチェーンにおいて，別の視点からサプライチェーンのパフォーマンスを分析する．ここで，本研究と Chen and Wang の具体的な相違点は 3 つある．第 1 に本研究では小売価格（p）を標準化することなしにそのまま用いている．第 2 に Chen and Wang では需要が十分低い場合には Bankrupt が発生し小売業から供給業者への支払いが滞るとしているが，本研究では需要量応じたサプライヤーへの支払いが常に実行されると仮定する．第 3 に信用取引契約（Trade credit contract）に加えて，収益分配契約（Revenue sharing contract）や買戻し契約（Buy back contract）など他のサプライチェーン契約を導入することで，システムの統合と全体最適実現が可能かどうか検証する．

Keywords: サプライチェーン・コーディネーション，信用取引契約均衡

■2013 年 6 月 2 日（日）1:00 pm - 2:30 pm

■C3 JOMSA セッション (846 講義室): Sustainability Management

座長: 富田 純一（東洋大学）

C3-1 BOP 市場ビジネスと価値創造プロセスイノベーション戦略

吉岡 孝昭（学習院大学）
森田 道也（学習院大学）

本稿では，包括的（BOP）市場を如何に開発するかについての枠組みを論ずる．ここでの結論は，「包括的（BOP）市場は，価値創造のできるアライアンスを構築して,絶えざるイノベーション（価値創造とリスク回避）を起こして開拓する」というものである．具体的には，①マーケットは，価値創造のできるプロセスを構築して開拓する．②そのプロセス構築は，コーディネーションにより作り上げる．③コーディネーションにより企業は競争力が生じる．④コーディネーションは，価値創造（V）とリスク回避（σ）が良い企業と戦略的に Win-Win 関係の構築がなされることが求められる．⑤このようにつくられたコーディネーションはリスクの高いマーケット開拓に威力を発揮する．⑥経営力が乏しいため，発展が遅れる企業の多い BOP 該当国では，リスクが高いマーケットで威力を発揮するコーディネーションの中でもアライアンスを通じた価値創造が有効である．

Keywords: イノベーション，BOP 市場ビジネス，アライアンス

C3-2 BOP 市場ビジネスとそのサステナビリティ

吉岡 孝昭（学習院大学）
森田 道也（学習院大学）

本稿では，包括的（BOP)市場を開発し，企業活動とその開発した地域経済を持続可能な競争優位の状態に置くための戦略についての枠組みを論ずる．ここでの結論は，「包括的（BOP)市場でサステナブルであるためには，環境変化に柔軟に対応し,絶えず経営戦略因子を操作しつつ,価値創造を継続し,競争力あるプロセス構成を構築し,持続させる」ことである．具体的には，BOP 経営戦略因子は,品質（Q),リードタイム（LT),売上（μ),コスト（C),リスク回避（σ）であり,この因子を追求目標として,環境の変化に応じて,価値創造構造を常にダイナミックに適応・変化・強化させることである．経営戦略因子の運用に当たっては，価値創造を，①獲得型価値創造（V＝Q,LT,μ,C)と，②リスク回避型価値創造（σ）に分け，両者のバランスの良い価値創造を創り出すことを目指し，その手段として，包括的（BOP)市場を市場には，アライアンスが有効な手段であることを論じる．

Keywords: サステナビリティ，BOP 市場ビジネス，アライアンス

C3-3 リバース・サプライ・チェーン・ネットワークの設計

佐藤 遥香（首都大学東京）
開沼 泰隆（首都大学東京）

近年，従来のサプライ・チェーン・マネジメントに使用済み製品の回収・リユース・リサイクルを加えたクローズド・ループ・サプライ・チェーン(CLSC)が重要視されてきている．本研究では CLSC における回収に焦点を当て，日本におけるリサイクルの仕組みを考慮して，環境に対する消費者の意識を含めた回収モデルを構築し，改善策を考案するためのリバース・サプライ・チェーン・ネットワーク設計を行うことを目的とする．方法としては，pick-up 回収と drop-off 回収によって，,家電と小型家電のリサイクルにおける回収をモデル化し，消費者の環境に対する意識を考慮することで使用済み製品の回収に個人間の価値観の差を加えることができ，また，シミュレーションにより様々な状況下でも回収における改善策を提案することが可能となる．さらに，本研究をもとに drop-off 回収に pick-up 回収を組み合わせることにより，経済的な利益を生み出すような回収ネットワークを構築することが可能になる．

Keywords: クローズド・ループ・サプライ・チェーン，回収，リバース・サプライ・チェーン・ネットワーク

C3-4 政策転換期における日本の太陽光発電産業とビジネスモデルの変容

高松 政博(東洋大学)
富田 純一(東洋大学)

わが国では 2011 年 3 月東日本大震災を契機としてエネルギー政策の転換が図られ，再生可能エネルギー促進のための政策が進められている．中でも 2012 年 7 月に FIT(固定価格買取制度)が導入されたことで再生可能エネルギーによる発電に注目が集まっている． 特に買取価格の高い太陽光発電の需要が急拡大している一方，供給側では太陽光発電システムの主要部品である太陽電池の輸入製品が国産品の半分に達するなど新興企業の国内進出も加速している．同様の現象はいち早く FIT を導入したドイツでも観察される．ドイツでは，2000 年の FIT 導入後，太陽光発電市場は急拡大したが，中国企業などの新興企業の参入により，独企業は苦境に陥った経緯がある．本報告では，ドイツの先行事例を念頭に置きながら，FIT 導入後のわが国太陽光発電産業の動向とビジネスモデルの変容を明らかにするとともに，今後の競争力向上に向けた方策について検討を行う．
Keywords: エネルギー政策，太陽光発電，ビジネスモデル

■2013 年 6 月 2 日（日）2:45 pm - 4:15 pm

■C4 JOMSA セッション (846 講義室): Customer Satisfaction and Customer Information

座長: 伊藤 一（小樽商科大学）

C4-1 品質モデルを基にした顧客満足度関数の同定方法
天野 大輔（首都大学東京）
開沼 泰隆（首都大学東京）

本研究では，技術メカニズムが不明な問題に対し，不具合発生の技術メカニズムを解明し，CAE シミュレーションに落とし込むことで予測評価重視型の開発設計実現を目指す．具体的には，駆動系オイルシール油漏れ問題をとりあげ，現象把握—可視化実験—論理思考—CAE 解析のプロセスによって設計へ寄与することを目的とする．CAE を活用した研究事例として予測評価重視型の開発設計実現への貢献度は大きい．品質要素の分類には，魅力的品質，一元的品質，当たり前品質があり，その充足の程度とそれによる満足度を表わした狩野の品質モデルは，概念的にその対応関係が示されているが，その関数関係を表現するのに至っていないのが現状である．本研究では製品開発にあたり，製品の品質要素の重要度の把握，またそれらの品質モデルの関数関係を求めることにより，顧客満足度の向上という観点から品質要素の強化方針決定方法を提案する．
まず，製品の評価基準である品質要素の重要度に対するウエイトを算出するために AHP を用いる． 次にそれぞれ効用関数にはリスク回避型，リスク志向型，リスク中立型の 3 種類があり， AHP と効用関数を組み合わせることにより， 重要度と品質モデルを把握することが可能となる．これを基にして顧客満足度関数を導出することが可能となる．提案方法の有効性を調査する目的で，スマートフォンを用いた事例研究を行い，提案方法の有効性を確認することができた．
Keywords: 狩野の品質モデル，顧客満足度，効用関数

C4-2 顧客の映画鑑賞意欲を高める映画予告編に関する一研究：若年層向けアクション映画を例として
柳澤 一馬（青山学院大学）
飯田 貴之（青山学院大学）
天坂 格郎（青山学院大学）

本研究では，統計科学と生理計測を用いて，顧客の映画鑑賞意欲を高める映画予告編を創出することを目的とする．具体的には，(1)映画予告編構成要素に関する調査，(2)皮膚電気反応を用いた実験，(3)予告編鑑賞中の視線解析，(4)一対比較による予告編構成シーンの解析，(5)予告編鑑賞中の脳波計測を行う．そして得られた知見から，映画予告編に，いつどんなシーンを盛り込めば良いのか，明白知化し映画予告編シーン構成モデルを創案する．本モデルを活用し，顧客の映画鑑賞意欲が高まる映画予告編を創作し，所与の成果を得ることができた．
Keywords: 映画予告シーン構成モデル，皮膚電気反応，脳波計測

C4-3 顧客情報を反映した従業員の人員配置法の創案：旅館の客室接待業務を例として
沖原 大樹（青山学院大学）
中村 将大（青山学院大学）
村上 啓介（青山学院大学）
天坂 格郎（青山学院大学）

旅館の従業員の配置を割り当てる際，考慮すべき要因として，顧客情報，接客時間，従業員の能力等が挙げられる．サービスを充実させお客様に満足してもらうことは，最大の目標であるが，一方で従業員の人件費も考慮しなければならない．そこで本研究では，多変量統計解析と数理計画法を援用し，顧客満足度を最大化しながらもコストを最小化する従業員配置法を提案する．
Keywords: 旅館，人員配置，CS

C4-4 公的医療施設における経営戦略実現の視点：本質的サービスと補完的サービスへの評価による顧客満足調査を中心に

伊藤　一（小樽商科大学）

地域医療を支える公的医療機関である A 病院を対象とした患者（顧客）満足度調査から得られた調査結果から高度医療技術への期待と付随的への評価を分析．顧客満足評価項目を非説明変数にとり本質的・補完的サービス品質との因果関係に関して標準化回帰係数によりその影響度を分析し，結果，高度治療技術への期待の高さを検証．さらに，別事例として課題を抱える地域公的医療施設 B 病院での経営戦略実現の阻害要因を検討．以上より公的医療施設の共通の問題点として，経営戦略を担う主体である事務職員の経営意識の低さと戦略実現への関与の低さを指摘し，組織形態の問題点を指摘（俗人的貢献度案に依存し組織的な知識の蓄積が阻害されている点を指摘）．

Keywords: サービスサイエンス，顧客満足度，医療経営

The 3rd International Symposium on Operations Management and Strategy 2013 (ISOMS2013)

Author Index

JOMSA 第5階全国研究発表大会
The 5th Annual Conference of Japanese Operations Management and Strategy Association 2013

Author Index

memo

memo

memo

memo

memo

Program for The Third International Symposium on Operations Management and Strategy 2013
第5回 JOMSA全国研究発表大会プログラム

Issued on May 31, 2013

Edited by the Organizing Committees for the International Symposium on Operations Management and Strategy and the 5th JOMSA National Conferencewith the editorial staff

Published by the Japanese Operations Management and Strategy Association
Hosted by Osaka City University

Printed and bound by Sankeisha Co.,Ltd.
Postal Address: 2-24-1 Chumaru-cho, Kita-ku, Nagoya, Aichi, 462-0056 Japan

印刷･製本　株式会社　三恵社
〒462-0056　愛知県名古屋市北区中丸町2-24-1
TEL : +81 52(915)5211
FAX : +81 52(915)5019
URL : http://www.sankeisha.com

HULINKS

APIS IQ

アピス アイキュー

APIS IQ シリーズの特徴

APIS 社は、ドイツの主要 OEM（自動車メーカー）、サプライヤー、研究機関との取引実績、共同研究により IQ シリーズを進化させてきました。

例えば、機能安全規格 ISO26262/IEC61508 への準拠を進める過程では、取引先や顧客から管理プロセスを証明することが必要になることもあり、その場合、ソフトウェアの導入、運用の実績も重要な考慮事項となります。IQ は導入数、運用実績は申し分ありません。

フォーム（表形式）の FMEA と違い、IQ では部品間、プロセス間の関係をツリー構造で明確にし、その結果を、各種 FMEA フォームに出力できます。ツリー構造はドラッグ& ドロップで柔軟に変更することができます。

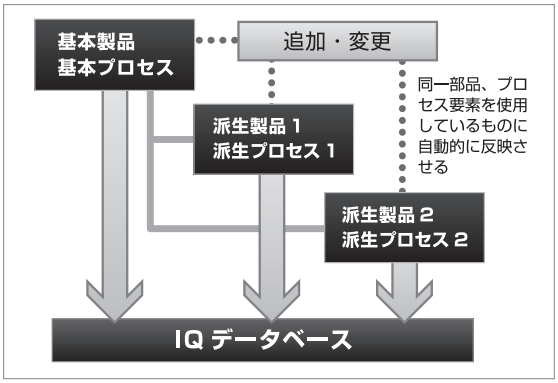
FMEA だけでなく、FTA、コントロールプラン、プロセスフローダイアグラム等、品質改善に必要な機能を有機的に統合可能です。

多言語対応で、内部で和英対訳表を持つことができ、日本語で行った入力作業を、英語の FMEA フォームで出力することができ、また、この辞書により、文章の変更は関連するフォーム、画面に反映されます。

APIS IQ は、設計 FMEA、工程 FMEA、FMEDA、FTA など広範囲の品質、機能安全に関する機能をサポートします

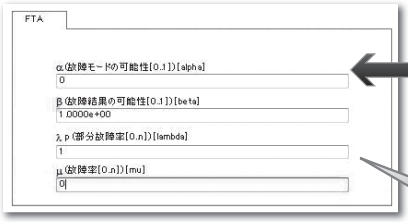
派生製品間のデータ同期

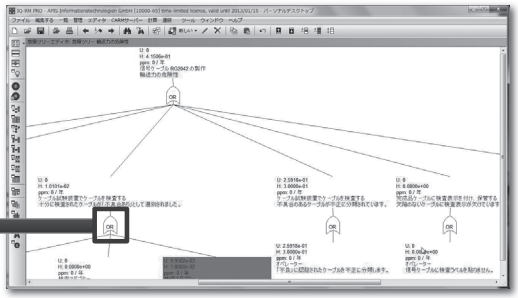
基本となる構造で定義した、故障モード、原因、措置を同期させることができます。変更の漏れや不一致を防止することができます。バリアント（派生）マトリックスやバリアント遷移マトリックスにより、追跡を容易にします。



FTA (Fault Tree Analysis)

FMEA の入力から FTA を自動的に作成し、その後、FMEA の情報とは別に FTA ツリー構造を自由に変更して分析することができます。

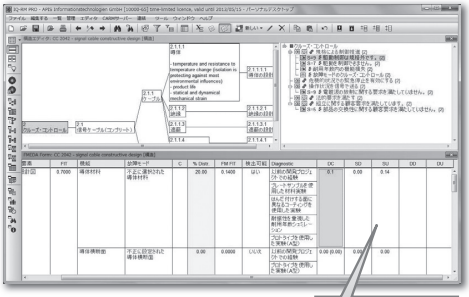




各ノードに故障率などを入力し、構造全体の故障率を自動的に計算することができます。

FMEDA ／機能安全 ［ PRO のみ ］

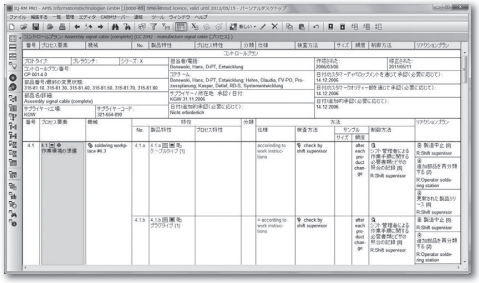
FMEDA のフォームをサポートし、各種診断計算を行うことができます。また機能安全に必要な ASIL レベルや各種数値の入力が可能です。



FMEDA の数値が計算されます

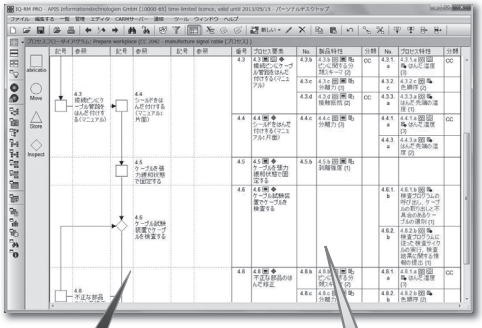
コントロールプラン ［ RM のみ ］

ISO/TS16949 等で重要視されているコントロールプランを作成、管理することができます。コントロールプランで使用するプロセス要素は、プロセス FMEA から抽出します。



プロセスフローダイアグラム ［ RM のみ ］

FMEA のデータを製造プロセスなどの可視化、設計を行うことを支援します。



フローの図

プロセスの要素、特性、製品の特性などが対応付けられます

HULINKS 株式会社ヒューリンクス

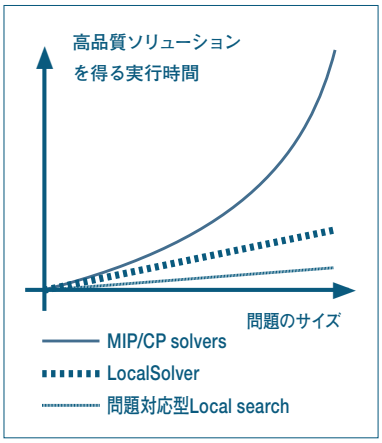
TEL：03-5642-8380　FAX：03-5642-8381
お問い合わせ：soft.sales@hulinks.co.jp

大規模組み合わせ最適化問題を解く
次世代 数理計画法システム
LocalSolver。
ローカルソルバー

LocalSolver

史上初、ローカルサーチ法による 次世代 数理計画法システム

- MIPのみならず、非線形0-1問題も解く
- 目標計画法を適用可能
- 極めて短時間で高品質の解を提供
- 1000万の意思決定変数まで実行可能
- 問題に忠実なモデリングと実行環境
- 革新的なモデリング言語
- C++、Java、.NET.で簡単に利用できるAPIs



どのような時、LocalSolverが役に立つか？

- MIPソルバーが良い整数解を発見出来ない場合
- MIPソルバーが良い整数解を発見できても、時間がかかりすぎる場合
- MIPモデルを記述することが非線形制約があるため困難な場合
- MIPでは解けないためCPを選択しようとする場合（LocalSolverを推奨）

2012年12月10日 最新バージョン、LocalSolver 3.0をリリースしました

待望のLocalSolver 3.0を
リリースしました。
新バージョンの特徴（追加）は、

- **浮動小数点係数**
- **新しい算術演算子：**
  log, exp, pow, cos, sin, tan
- **飛躍的なパフォーマンスの向上**
- **最適性または実行不可能性**
  評価のための機能

弊社サイトよりダウンロードできますので、ご利用ください。
詳細は、localsolver@msi-jp.com までお問い合わせください。

【お問い合わせ】
MSI株式会社
〒261-7102 千葉市美浜区中瀬2-6
WBGマリブウエスト2F
TEL 043-297-8841
FAX 043-297-8836
localsolver@msi-jp.com
xpress@msi-jp.com

日本で21年の実績のある、
数理計画・最適化コンポーネントの世界的
デファクトスタンダードFICO Xpress
ファイコ　エクスプレス

FICO™ Xpress

Xpress 7.4 最新バージョン・リリース!!

FICO Xpressは、洗練されたモデリングシステムとして他の追随を許さないデファクト優位性があります。
1. 過去25年にわたる最適化コンポーネントの研究・開発実績
2. 世界最速のソルバー
3. 柔軟なモデリング言語
4. 完全なビジュアル開発環境
5. 洗練されたモデリング−実装−実施の統合環境
6. 強力な実モデリングの支援、テクニカル支援

最適化モデル生成（Xpress-Mosel）と、その最適化ソルバー（Xpress-Optimizer）を中心にして、次の製品を供給しています。

- Xpress Linear Programming
- Xpress Mixed Integer Programming
- Xpress Quadratic Programming
- Xpress-SLP Non-Linear Programming
- Xpress-Kails Constraint Programming

Xpress 製品概要

● Xpress サポートOS
（全て32bit, 64bitをサポート）
1. Win
2. Linux
3. Unix
4. Mac OS

● Xpress ライセンス・タイプ
1. Desktop
2. Server
3. Floating

（Xpress はクラウド・コンピューティング環境をサポートします。）

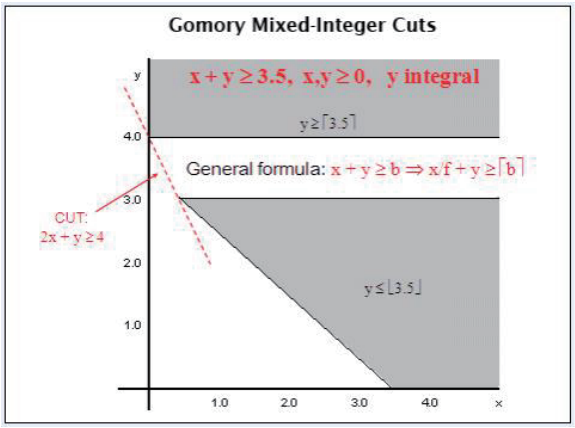
● Xpress 製品
1. Xpress-Optimizer
2. Xpress-Mosel/IVE
3. Xpress-SLP
4. Xpress-Kalis
5. USB Dongle

上記詳細は、弊社WEBサイト
www.msi-jp.com/xpress/を
ご覧ください。

Gurobi Optimizer バージョン 5.5

最適化ソリューションに無限の可能性

今まで、大規模な問題、複雑な問題で数々の最適化ソフトウェアを試してみたが、解を得るのに時間がかかる、また、解を得られなかったあなたに朗報です。第三者機関が実施したベンチマークサイトで世界最高速を常に記録し続けている線形計画（LP）、混合整数計画（MIP）、二次計画（QP）、混合整数二次計画（MIQP）、二次制約（QCP）および混合整数二次制約（MIQCP）のための最新鋭の数理最適化ソルバー Gurobi Optimizer 新バージョン 5.5 がリリースされました。バージョン 5.5 では、新たに計算サーバ機能をサポートしました。この機能により、ユーザは、最適化アプリケーションソフトウェアライセンスおよび計算リソースをより効率的に使用でき、ハイパフォーマンスな動作に支障がない最適化アプリケーションの実行環境が確保できます。Gurobi Optimizer は、最新のハードウェアのアーキテクチャおよびマルチコア プロセッサ技術を徹底的に活用するよう設計された、先進の最適化アルゴリズムにより、高速に信頼性ある解を導き出します。



Gurobi Optimizer は米国 Gurobi Optimization Inc. の開発製品です。

Visual Studio は 米国 Microsoft Corporation の米国及びその他の国における登録商標または商標です 。

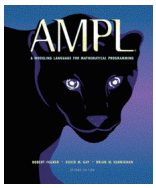
究極のスケーラビリティー

最強のモデリング言語 AMPL

AMPL は、離散および連続変数における線形および非線形最適化問題のための包括的でパワフルな代数モデリング言語です。ベル研究所で開発された AMPL は、コンピュータが適切なソルバーとのコミュニケーションを管理している間、ユーザーが、共通表記法やよく知られている概念を使うことで、最適化モデルを明確に表し、そして解決法を調べます。AMPL のスピードやコントロールオプションが、繰り返し実行のための特に能率的選択を導き出し、AMPL の柔軟性と便利さが、迅速なプロトタイプ作成およびモデル開発を理想的に支援します。

AMPL に対応した下記の非線形ソルバーの販売を開始しました。

KNITRO、MINOS、CONOPT、SNOPT

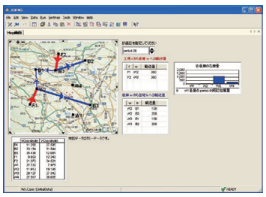


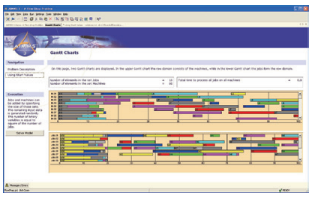
AMPL は米国 AMPL Optimization LLC の開発製品です。

応用開発モデリングツール AIMMS

スムーズな開発を支援

AIMMS は、オペレーションズ リサーチを基盤にする最適化アプリケーションおよびプランニング アプリケーション構築のための応用開発環境を提供します。AIMMS は、エネルギー、サプライチェーン マネジメント（SCM）、生産計画、ロジスティックス、植林計画、リスク管理、収益管理、資産管理などの幅広い産業分野において、ワールドワイドで活躍するリーディング カンパニーの意思決定支援のため、広く採用されています。





AIMMS はオランダ Paragon Decision Technology B.V. の開発製品です。

AIMMS はオランダ Paragon Decision Technology B.V. の登録商標です。

Gurobi Optimizer/AIMMS/AMPL 製品無償トレーニング

オクトーバー・スカイでは、ご購入を検討されているお客様を対象に、半日ハンズオン・トレーニングを実施しています。トレーニングに関しては、下記 Web サイトを参照してください。

URL: http://www.octobersky.jp/support/training.html

お問い合わせ： info@octobersky.jp

<お問い合わせ先>

株式会社オクトーバー・スカイ

〒183-0055　東京都府中市府中町 1-25-12　ゼルコバビル 4 階

TEL : 042-319-1885 / FAX : 042-319-1886

URL : http://www.octobersky.jp　E-mail : info@octobersky.jp

教育研究支援企業（株）三恵社

少部数テキスト出版
少部数出版システム

出版2200タイトルを超える実績。

全国の先生方より多様な教材のご依頼をいただいて17年が経過いたしました。数多くのテキスト出版、製作のお手伝いを積み重ねノウハウを持たせていただきました。平成8年にスタートしたこのシステムは、「講義内容に沿ったテキスト・副教材が、低価格で発行出来る。」「効率的な授業運営に役立つ。」と、ご好評をいただいております。

少部数テキスト出版

講義プリントや研究内容を冊子にまとめて、通常のテキストや参考書と同じように学内の書店で販売ができます。先生の費用負担は無く、販売先の交渉や売れ残りの心配もありません。

- ■**Eメール入稿**だけでテキスト製作から出版まで対応!
- ■**超極小部数**の論文集・報告書等にも対応!
- ■**カラーページ**の**少部数**も安価で対応!
- ■「**Amazon.co.jp**」や弊社運営の**インターネット書店**にてオンデマンド出版本の**全国販売**!（一部教材を除く）

信頼と実績の出版

文部科学省の出版補助申請ができる出版社として正式に認められておりますので、申請に必要な見積書の作成など、ご検討の際にはご相談ください。

●当社の少部数テキスト出版をご利用頂いている主な大学

東京大・筑波大・慶應義塾大・早稲田大・立教大・上智大・日本大・防衛大・青山学院大・東洋大・国士舘大・専修大・埼玉工業大・武蔵工業大・亜細亜大・群馬県立女子大・岩手県立大・秋田県立大・新潟大・山梨大・京都大・大阪大・名古屋大・愛知県立大・岐阜大・静岡大・静岡県立大・三重大・名城大・中京大・愛知産業大・名古屋商科大・立命館大・関西大・阪南大・九州産業大・鹿児島大　　順不同　他多数

少額の費用で一般書籍の発行ができるのが「少発行出版システム」

Q&A　あなたの「‥‥でも」を「少発行出版システム」が解消!

Q 自費出版ってけっこう費用がかかるんだよね。

A いいえ　オンデマンド印刷によって、低コスト、少部数での出版が可能になり、原稿をお持ちのパソコンで入力、編集していただければ、さらにお安く出版できます。

Q たくさんの在庫を抱えるのが心配だな。

A 大丈夫　オンデマンド印刷だから少部数の増刷が可能となり、通常の出版のように大量の在庫を抱え込む心配はありません。

Q しょせん自費出版、正式な書籍として出版できるの?

A 出来ます　印刷物は「正式な出版物」として ISBN コードを取得し、国会図書館へ献本し、書籍協会に登録するなど出版に関する手続きはすべて弊社が行います。また、専門のグラフィックデザイナーが装丁デザインいたします。

Q できた本を販売できるの? 印税は貰えるの?

A ご安心を　大手ネット書店「amazon」等や、弊社のホームページ上で販売ができます。また、専門書書店「ジュンク堂」をはじめとする書店注文対応もできますし、グーグル検索により全国へ本の紹介もいたします。もちろん印税の支払いも可能です。

Q 本を書いたり、編集する時間がなくて‥‥

A お任せ下さい　専属のライターがインタビューから書きおこし、1 冊の本にいたします。また、編集のサポートなどお忙しい方のための支援システムもご利用下さい。

■例えば　完全データ入稿の場合
A5 サイズ・200 ページ・ペーパーバックスタイル
100 冊で‥‥ 約 **30** 万円

●詳しくはホームページをご覧下さい。
http://www.sankeisha.com/

●詳しくご説明させていただきます。
E-mail info@sankeisha.com

ARTISTIC & ACADEMIC PRINTING
株式会社 三恵社
出 版 事 業 部

本　社
☎052-915-5211
〒462-0056 名古屋市北区中丸町2-24-1
FAX.052-915-5019

東京営業所
☎03-3206-6882
〒104-0042 東京都中央区入船3-1-10中銀京橋マンシオン202 / FAX.03-3206-6883

DAICEL

The Best Solution for You

さらに広く、技術を世界へ

―化学を超えて、“ベストソリューション”を追求します―

TAC　キラルカラム　POM　エアバッグ用インフレータ　メンブレン

株式会社ダイセル

大阪本社　〒530-0001　大阪市北区梅田3-4-5　毎日インテシオ　TEL06-6342-6111
東京本社　〒108-8230　東京都港区港南2-18-1　JR品川イーストビル　TEL03-6711-8111

http://www.daicel.com

JOMSA Japanese Operations Management and Strategy Association

オペレーションズ・マネジメント＆ストラテジー学会

設立趣旨

オペレーションズ・マネジメントは、製品開発、調達、生産、流通、販売等におけるオペレーションの効果的、効率的な設計と運用を通じて、企業の競争力を向上させ、環境を保全し、社会へ貢献することを旨とする。ＪＩＴあるいはＴＱＭに代表される日本的生産方式は既に世界に広く普及し、その基礎概念は昇華され、オペレーションズ・マネジメントという包括的な研究・教育分野が確立されている。本学会は、日本におけるオペレーションズ・マネジメントの研究・教育の中核となり、日本が再び21世紀のものづくりに貢献できるように、生産に関わる要素技術の学際的研究、グローバルな視点でのオペレーションに関わる意思決定の研究を推進し、製造業経営の要諦の体系化を目指す。また、サプライチェーン・マネジメント、サービス・サイエンス等のオペレーションに関わる諸分野の研究を推進し、日本発の「ものづくり新論」というべき統合的な理論構築のための学術の確立を目指す。

学会の目的

オペレーションズ・マネジメント＆ストラテジー学会（ＪＯＭＳＡ）は、オペレーション戦略を含むオペレーションズ・マネジメントにかかわる研究・教育と実践に関連する情報交換を図り、特に、海外のＰＯＭＳ、ＥｕｒＯＭＡ、アジア諸国のオペレーションズ・マネジメント関連学会との連携を促進することにより、国内のみならずグローバルなレベルで、世界の学術と産業の進歩発展に寄与することを目的とする。

発起人代表

森田 道也（学習院大学 教授）
天坂 格郎（青山学院大学 教授）
松井 美樹（横浜国立大学 教授）
松尾 博文（神戸大学 教授）

新規入会希望者はこちらまで
http://www.e-jomsa.jp/nyukai.html

メールでのお問い合わせ
E-mail：info@e-jomsa.jp

定価（本体価格1,905円+税）