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	<i>TSL News.</i> . <u>2</u>	items and announcements for the next TSL Newsletter, scheduled for Spring 2005, to me.
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Message from the TSL President

Dear TSL friends,

It was fantastic to see so many TSL members at the TSL business meeting in Denver. I am looking forward to the activities of the coming year.

As many of you know, our election has just been completed. Thank you to all who articipated in the TSL election. Cindy Barnhart was elected vice-chair, and Elise Miller-Hooks was elected to stay on as secretary-treasurer for the next term, January 1, 2005 to December 31, 2006. Congratulations to Cindy and Elise, and thank you again to everybody who participated Our current vice-chair, Amelia Regan, will become the new chair on January 1.

Also, the new bylaws were approved overwhelmingly, with 66 votes in favor and 1 vote opposed.

Now that the new bylaws have been approved, a number of new items have moved onto the agenda:

(1) We would like to make sure that the Special

Interest Groups (SIGs) get off to a good start. Based on a survey conducted a year ago,

the proposed initial SIGs are as follows:

(a) Freight Transportation and Logistics

(b) Urban Transportation

(c) Air Transportation

(d) Facility Logistics

(e) Intelligent Transportation Systems

Note that other SIGs may be formed - the

1 of 3

process is described in the new bylaws, and basically involves a petition supported by at least 25 TSL members. We have to elect a chair and a vice-chair for each SIG. Each TSL member will be able to nominate and vote for the chairs and vice-chairs of any SIGs. At this stage we ask for nominations for these positions. We will share these nominations with all TSL members as they are received. So far we have received the following nominations: Facility Logistics: Chair: Russ Meller Vice-Chair: Kevin Gue The election for these positions (as well as the international liaisons mentioned below) will take place early next year. (2) Three international liaisons have to be elected: one for the Americas, one for Asia-Pacific, and one for Europe and Africa. At this stage we also ask for nominations for these positions. We will also share these nominations with all TSL members as they are

received. So far we have received the

following nominations:

Europe and Africa: Frédéric Semet

Asia Pacific:

Janny Leung

Raymond Cheung

Americas: Theo Crainic

(3) We want to apply for society formation soon.

A number of things are hopefully counting in our

favor at this time:

(a) We have a large number of members, more than many of the INFORMS societies, thanks to a large extent to recent growth in the number of student members. Please remember to renew your membership of TSL when you renew

your membership of INFORMS. Also encourage students and others to join.(b) The new bylaws, SIGs, international liaisons,etc make a good case that we operate as a society.

A few reminders:

The new bylaws are available on our web site http://transportation.section.informs.org/ I hope you will notice that our new web master,

Warren Powell, has already greatly improved our web site. He promises that, with the help of the SIGs, more improvements are on the way.

I am looking forward to next year's TSL activities. I hope to see many of you during the year.

Anton Kleywegt

The new TSL mailing list is <<u>transci-logistics</u>-<u>section@list.informs.org</u>>. If you do not receive email sent to transci-logisticssection@list.informs.org, then please let me know at <u>elisemh@umd.edu</u>.

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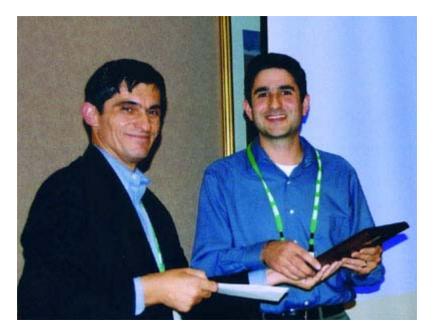
TSL News and Notes

News from the INFORMS Annual Meeting in Denver

The Fall 2004 INFORMS National Meeting was held in Denver in October of 2004. TSL Sponsored 33 sessions (perhaps an institutional record!!).

2004 INFORMS TSL Dissertation Prize Competition Results

First place: Lawrence Snyder (Northwestern University, Advisor: Mark Daskin) for his dissertation, "Supply Chain Robustness and Reliability: Models and Algorithms."



Honorable mention: Miguel Figliozzi (University of Maryland, Advisors: Hani Mahmassani and Patrick Jaillet) for his dissertation, "Performance and Analysis of Spot Truck-Load Procurement Markets using Sequential Auctions."



TSL Best Paper Results

The award was given to Gilbert Laporte, Francois Louveaux and Luc Van Hamme for their paper, "An Integer L-Shaped Algorithm for the Capacitated Vehicle Routing Problem with Stochastic Demands, " Operations Research 50 (2002), 415-423. This article describes an exact algorithm for the stochastic vehicle routing problem with random demands. This problem is notoriously difficult and has numerous applications in the field of distribution management. It is much more difficult to solve than its determinstic counterpart, which is already quite challenging. The problem was introduced about 25 years ago, but so far only a handful of exact solution approaches have been proposed for its solution and these method can only handle relatively small instances. The algorithm by Laporte, Louveaux and van Hamme is capable of solving much larger and tightly constrained instances than was previously achievable.

INFORMS Fellows in our Midsts

Congratulations to our friends for becoming INFORMS fellows this year: Michael Ball, Mark Daskin, Bruce Golden, Don Hearn, Jan Karel Lenstra, Amedeo Odoni, and Warren Powell.

TSL Member at the top of INFORMS

Mark Daskin was elected president elect of INFORMS!!!

News from the Transportation Planning SIG

The Denver meetings included four excellent sessions in the INFORMS TSL Urban Transportation Planning Models track, each with four papers. I made the mistake of trying to squeeze five papers into one session, and eventually had to triage one to stay on schedule (my own, on "Estimation of Link Travel Times in Stochastic Networks," joint with my former student, now Assistant Professor Yue-Yue Fan of the University of California

at Davis).

Four back-to-back sessions was a bit of a marathon, but attendance was strong (25-45,) and everyone seemed to appreciate the work being presented. Questions were informed and helpful. We had a nice mix of senior personnel, junior personnel, and students. My thanks to Professor Grisselle Centeno for heading up "Team Tampa" and showing up with all those well-guided University of South Florida students. They are lucky to have her attention.

I enjoy chairing these sessions immensely. Catching up on good work is a real treat, but I intend to share the wealth in 2005 and recruit chairs for these sessions in addition to speakers. In the past few years, the Urban Transportation Planning Model sessions have been getting participation from the most senior and the most junior academic personnel. I like the existing dynamic, but I also want to try and attract more of the TSL Section's excellent mid-career scholars and future Fellows to these sessions.

Picking a best presentation from the 2004 cohort is difficult. I do not have to, but that is not going to stop me. Anna Nagurney's presentation on "Projected Dynamical Systems and Evolutionary Variational Inequalities (with applications to traffic)," Laurie Garrow's presentation on "Mixed Generalized Extreme Value Models," and Yi-Chang Chiu's presentation on "A Multi-Resolution Traffic Simulation Assignment ..." all leap to mind for

different reasons. Anna's paper was a testimony to the wonderful things that can happen when you bring a small group of very talented, collegial scholars together, sequester them at the Bellagio (the real Bellagio, not the one in Las Vegas), feed them well, and let them work. Laurie reminded me that everything I thought I knew about discrete choice models is now effectively obsolete (Note that Laurie Garrow has just graduated from Northwestern and is now on the CE faculty of Georgia Tech). However, the

paper I liked best of all was Yi-Chang's, who integrated micro-, meso-, and macro-scale network models to develop a tool that his local Metropolitan Planning Organization could actually use to evaluate the impats of new development projects and network changes. The problem is grounded in a very practical, difficult, relevant application, and Yi-Chang manages to knock down a number of mathematical, and computational problems enroute to a

rather seamless solution. He makes an important contribution that links Dynamic Traffic Assignment to supporting approaches, and reinforces the relevance of all.

A few presenters asked privately what additional venues were available for presenting work relating to various aspects of urban transportation modeling. American Society of Civil Engineering conferences tolerate the work politely, but in my opinion do not generally embrace it. The smaller, more focused meetings are the best ASCE venues.

There are always the Transportation Research Board meetings in Washington DC each January. Intellectually, they are fine, and the various receptions are a great chance to catch up with advisors, classmates, and students, but I have come to regard Washington in January as something of an acquired taste. In addition, I always drink too much at the receptions.

The Regional Science Association meetings occur in Fall, and I think that they remain a high quality venue for dissemination and discussion. The November 2004 meeting was in Seattle (http://www.regionalscience.org/). There is also a Western Regional Science meeting in February in San Diego (http://www.u.arizona.edu/~plane/wrsa.html). The American Planning Association and American Collegiate Schools of Planning annual meetings are reasonable options. The planners would be at least as engaged as the ASCE audiences, but presenters would not receive much qualified feedback on quantitative presentations.

Presenters should also consider the research tracks at the annual meeting of the Institute of Industrial Engineers. I would not have made this suggestion ten years ago, because the annual IIE meeting and presentations of that day were so strongly oriented toward practice and the solutions tracks. However, the Council of IE Academic Department Heads (CIEADH, see-dah), has worked quietly and systematically to implement and expand the

research presentations at the IIE meeting. These research sessions

constitute the IERC (Industrial Engineering Research Conference). Last year, there were over 600 abstracts submitted to the IERC. A presenter might think he or she was at an INFORMS session at these presentations, except speakers get more than 20 minutes to speak and answer questions. IIE meets in Spring. The next meeting is in May in Atlanta (http://www.iienet.org/annual/). I have organized (well, am in the process of organizing) the CIEADH Doctoral Colloquium (http://www.iienet.org/annual/colloquium_doctoral.htm) for the Atlanta meeting if you have students you want to nominate to participate, or are inclined to participate as speakers.

Grisselle Centeno [gcenteno@eng.usf.edu] is a member of the IIE-OR Division board, and she has extended an open invitation to TSL members to attend the Division's reception at the IIE Conference, and to consider joining. OR Division membership is free with IIE membership. If you have submitted a transportation paper to the IIE conference, and you let Grisselle know she

will place it in a Transportation Session.

And finally, there has been a fairly rapid expansion in the number of university transportation research centers (including

USC's METRANS Center) since 1998, courtesy of TEA-21. We all know about the work at the more established centers (CUTR at USF, UCTC at UC Berkeley, NUTC at Northwestern, etc.), but there is quite a bit happening in these younger centers too, and

they present excellent ad hoc opportunities for collaboration and

dissemination.

My thanks to the presenters in the Urban Transportation Planning Models sessions for their contributions to another lively, informative series of talks. It was great to see everyone, and I look forward to seeing even more of you next year at INFORMS, if not in one of these other venues in the interim.

James E. Moore, II, Professor and Chair Daniel J. Epstein Department of Industrial and Systems Engineering (ISE) Andrew and Erna Viterbi School of Engineering USC State Capital Center--School of Policy, Planning, and Development UNIVERSITY OF SOUTHERN CALIFORNIA

News from the Facility Logistics SIG

One of the newest TS&L SIGs is in the area of Facility Logistics. As a way to introduce the SIG to the rest of the TS&L section, our definition for facility logistics is presented as well as two example research projects by four of our members.

Facility Logistics encompasses facility design and internal logistics for manufacturing, distribution, and service facilities. Research topics in this area include both design and operational aspects of material and information flow within facilities to improve productivity and performance. Specific topics include facility layout, material handling, storage/retrieval systems, order fulfillment, sensor deployment, and inventory tracking and control, among others.

Russell Meller and Kimberly Ellis are currently working on a facility logistics research project with Volvo Trucks North America at their plant in Dublin, Virginia. The objective of the project, entitled, "Volvo Trucks NA Plant Logistics Studies and Development of a Facility Logistics Decision-Support Tool," is to develop a decision-support tool to facilitate the uninterrupted flow of supplied goods to assembly lines with a high-degree of efficiency in an environment of constant change. The tool will consider that dock doors are finite capacity resources and that limited floorspace is available for storing supplied goods outside of the warehouse. The decision-support tool will aid with the following three decisions: 1) assigning supplied goods to a group of dock door locations; 2) assigning a storage location within the plant or warehouse for supplied goods; and 3) determining personnel staffing levels to support logistics activities. David Ciemnoczolowski and Yavuz Bozer of the University of Michigan are investigating facility logistics issues in lean manufacturing. Cyclic, route-based material distribution systems, or so-called milk run systems, are often used in lean manufacturing to support frequent deliveries of containerized parts from a central storage area (or supermarket) to line-side storage at multiple work centers on the factory floor. Initial goals of this research are to determine how to assign work centers to routes and how to determine the number of kanbans for each part type to achieve a desired service level. Preliminary results have been offered to industry through the Center for Professional Development's Lean Manufacturing Program at the University of Michigan.

New Books of Interest

Gianpaolo Ghiani, Gilbert Laporte, Roberto Musmanno, Introduction to Logistics Systems Planning and Control, Wiley, Chichester, 360 pages, 2004. ISBN 0470849169 http://www.wileylogisticsbook.dii.unile.it

Professors on the Move

This fall Kevin Gue assumed a faculty position in the Department of Industrial & Systems Engineering at Auburn University. He was formerly Associate Professor in the Graduate School of Business & Public Policy at the Naval Postgraduate School. His new email: kevin.gue@auburn.edu.

TSL Mourns the Passing of Renowned Scholar and Dear Friend: Robert Kalaba

Robert E. Kalaba, Professor of Biomedical Engineering and of Economics at the University of Southern California

Robert E. Kalaba, an applied mathematician associated with the University of Southern California for almost half a century and renowned internationally for his analytical and computational solutions to problems in physics, engineering, operations analysis and biology, died unexpectedly on September 29 following a brief illness. He was 78. He had not retired from USC, where he was teaching the senior-level course, Mathematical Methods in Economics.

A full-time professor of biomedical engineering and of economics, Kalaba was an engineering lecturer at USC from 1956 to 1971. He became a research associate in biomathematics in 1966 and a visiting professor of electrical engineering in the biomedical engineering program at the USC Viterbi School of Engineering in 1969. In 1974 he became a full professor at USC with appointments in biomedical engineering, electrical engineering, and economics.

"He was truly one of the founding fathers of BME here,"

said Michael Khoo, professor and chair of the Department of Biomedical Engineering. "Computational programs that he helped prepare are in use in coronary care units to aid in the optimization of drug regimens."

Kalaba was an applied mathematician at the RAND Corporation in Santa Monica from 1951 to 1969, and a contemporary there of Lester R. Ford Jr., D. R. Fulkerson, George B. Dantzig, Richard Bellman, and briefly of John Von Neumann, whom Kalaba credited with suggesting that Kalaba focus on problems in biomedical engineering, specifically models of renal function. Much of the work Kalaba considered his most valuable contributions consisted of work he published Bellman. Each considered the other an important collaborator. He was a founding editor of Applied Mathematics and Computation and served as an editor on numerous other mathematical journals. He was also a consultant at Hughes Aircraft Company, Esso Production Research Corporation, the Jet Propulsion Laboratory and the Service Bureau Corporation.

He continued to work from his hospital until a few days before his death and was the author of more than 600 research papers, 17 book chapters and 12 books.

Born in Mount Vernon, N.Y., Kalaba earned his B.S. in 1948 and his Ph.D. in 1958 from New York University. He served as an electronics technician in the U.S. Navy at the end of World War II.

A resident of Pacific Palisades, California, he is survived by his wife Wilma, two daughters, Darlene and Kathy, two sons, Bob and Rick, and four grand children Kristin, Joe, Sarah, and Lindsey.

The 85th Percentile

The 85th percentile of vehicle speeds is supposed to be that of unimpeded vehicles under reasonable driving conditions. Those of us who live in urban areas know that such conditions are rare. The result is that traffic surveys yield biased estimates of the 85th percentile.

Two articles on the subject on unbiased estimation of the 85th percentile of vehicle speeds in heavy traffic appear at: 1. Http://www.fieldreliability.com/Nwslt5.doc page 3 discusses unbiased estimation of the 85th percentile for Gordon Newell's model of traffic in a long tunnel, and

2. Http://www.fieldreliability.com/Speed.htm describes and http://www.fieldreliability.com/Speed.xls derives the maximum likelihood estimator of the 85th percentile for traffic measured relatively close to a signal or intersection but far enough away to achieve unimpeded speeds, except perhaps for blocking by slower vehicles.

Current methods of collecting measurements and estimating the 85th percentile may be biased 5 to 10 mph because of blocking. (01) 925 447-4969 pstlarry@comcast.net http://www.fieldreliability.com

CUTC Awardees Announced

The Council of University Transportation Centers (CUTC) has announced the 2004 winners of the C. V. Wootan and Milton Pikarsky Memorial Awards for theses and dissertations in transportation, and CUTC's Non-Thesis Awards. The Wootan and Pikarsky Awards are given annually to four graduate students in transportation for the two best PhD Dissertations and MS Theses. The Wootan Awards are given for research in policy and planning. The Pikarsky Awards are given for research in science and technology. Graduate student work must be nominated by the students' advisors, and the nominating institutions must be members of CUTC (http://cutc.tamu.edu/). A faculty committee from the CUTC membership reviews the submissions.

In addition to the Wootan and Pikarsky Awards, the CUTC gives two awards for the best graduate, non-thesis papers, reports, or projects in transportation, one in policy and planning, and the other in science and technology. Winners of the non-thesis and thesis awards receive a prize of \$1,500. Winners of the dissertation awards receive a prize of \$2,000.

The 2004 winner of the Pikarsky Dissertation Award in Science and Technology is Dr. Angshuman Guin, Georgia Institute of Technology, for his dissertation "An Incident Detection Algorithm Based on a Discrete State Propagation Model of Traffic Flow." Dr. Guin was nominated by Prof. John D. Leonard, II, School of Civil and Environmental Engineering, and was advised by Prof. Billy M. Williams, Department of Civil Engineering, North Carolina State University.

The 2004 winner of the Wootan Dissertation Award in Policy and Planning is Dr. Jessica Guo, University of Texas at Austin, for her dissertation "Addressing Spatial Complexities in Residential Location Choice Models." Dr. Guo was nominated by Prof. Chandra R. Bhat, Department of Civil and Environmental Engineering.

The 2004 winner of the Pikiarsky Thesis Award in Science and Technology is Ms. Myriam M. Rodriguez, Purdue University, for her thesis "An Assessment of Preservation Needs of State Highway Bridges in Indiana." Ms. Rodriguez was nominated by Prof. Kumares C. Sinha, School of Civil Engineering.

The 2004 winner of the Wootan Thesis Award in Policy and Planning is Mr. Justice Appiah, Texas A&M University, for his thesis, "An Examination of Factors Affecting High Occupancy/Toll Lane Demand. Mr. Appiah was nominated by Prof. Mark Burris, Department of Civil Engineering. The 2004 winner of the CUTC best Non-thesis Paper Award in Science and Technology is Mr. Luca Quadrifoglio, University of Southern California, for his paper "An Insertion Heuristic for Scheduling Mobility Allowance Shuttle Transit (MAST) Services." Mr. Quadrifoglio was nominated by Prof. Maged Dessouky, Daniel J. Epstein Department of Industrial and Systems Engineering.

The 2004 winner of the CUTC best Non-thesis Paper Award in Policy and Planning is Ms. Camille Fink, University of California, Los Angeles, for her paper "Transit Security and Environmental Design: A Preliminary Analysis of Union Station and Gateway Center." Ms. Fink was nominated by Prof. Brian D. Taylor, Department of Urban Planning.

All six winners will be recognized at the Council of University Transportation Centers' Banquet and Winter Meeting on January 8 at the Omni Shoreham Hotel in Washington DC, just prior to the 84th Meetings of the Transportation Research Board. The Transportation Science and Logistics Section extends its congratulations to these students, their advisors, and to CUTC.

Other Announcements

Workshop: Mathematical Models for Optimizing Transportation Services

The Operations Research Group at the University of Auckland is pleased to announce a workshop on "Mathematical Models for Optimizing Transportation Services" to be held at the University of Auckland from April 19 - 22, 2005, supported by the New Zealand Institute of Mathematics and its Applications.

The workshop will focus on these three broad areas of major importance: transportation planning under uncertainty, optimizing the design of transportation systems, and pricing and revenue management. Exploring the interface between these areas will be of particular interest, and so the workshop will seek to bring together researchers who work in each of these fields to provide a cross-fertilization of ideas. A further goal is to emphasize the interface between mathematics and its applications in practical situations. To enhance this we will be engaging the support

and participation of industrial partners.

We are soliciting contributed talks from interested researchers who work in these fields. Contributed talks must be relevant to the themes of the Workshop. If you are interested in submitting a contributed talk please email a title and abstract to

Andy Philpott at a.philpott@auckland.ac.nz

Matthias Ehrgott at m.ehrgott@auckland.ac.nz before February 15, 2005. Invited speakers are: Prof. Michael Florian (University of Montreal)
Prof. Michel Gendreau (University of Montreal)
Assoc. Prof. Huei Chuen Huang (National University of Singapore)
Prof. Ellis Johnson (Georgia Institute of Technology)
Assoc. Prof. Anton Kleywegt (Georgia Institute of Technology)
Prof. Gilbert Laporte (University of Montreal)
Prof. Oli Madsen (Technical University of Denmark)
Prof. Anna Nagurney (University of Massachusetts)
Prof. Werner Römisch (Humboldt University of Berlin)
Prof. Dr. Anita Schöbel (University of Göttingen)

The registration fee is NZ\$ 300. More information about the workshop, the venue, travel and accommodation can be found on the conference website at www.esc.auckland.az.nz/Transportation.

IFORS Hawaii

11th - 15th July, 2005 Transportation Cluster Call For Papers

We would like to continue the tradition of strong representation at IFORS meetings and invite Informs TSL Section members to organize sessions. The transportation cluster at IFORS Hawaii covers all aspects of transportation, e.g.,

- · road, air, water, and rail transportation
- \cdot network design and network flows
- · intelligent transportation systems
- \cdot hazardous material transportation
- \cdot container handling, transportation, and management
- · terminal management
- \cdot real-time logistics and transportation
- \cdot methods for handling uncertainty
- \cdot e-business, internet-related tools and transportation
- \cdot auctions and collaborative tools for transportation
- · crew management and crew planning
- · dynamic pricing and yield management
- \cdot public transportation and mass transit

We would like to give special attention to emerging models, tools, and technologies that can be expected to strongly influence future implementations of transportation systems. Note that all aspects of routing will be handled by a different cluster.

Abstract submission deadline is Jan. 15, 2004. If you are interested in organizing one or several sessions, please contact one of the cluster co-chairs:

Raymond Cheung Hong Kong University of Science and Technology rcheung@ust.hk

Tore Grünert GTS Systems and Consulting, Aachen, Germany gruenert@gts-systems.de

Janny Leung The Chinese University of Hong Kong janny@se.cuhk.edu.hk

International conference on operations and supply chain management

The international conference on operations and supply chain management (OSCM) is to be held in Bali, Indonesia on 15 - 17 December 2005. The committee invites contributions on any topic within the broad areas of operations and supply chain management, including of course transportation and logistics issues. The deadline for submitting the abstracts is 10 May 2005. For more information please visit the conference web site at

http://www.oscm2005.org or send an e-mail to: oscm@oscm2005.org.

Nyoman Pujawan, Ph.D. OSCM2005 Conference co-chair Department of Industrial Engineering Sepuluh Nopember Institute of Technology Kampus ITS Sukolilo Surabaya 60111 INDONESIA

Teachers Institute on Material Handling and Facility Logistics

The College-Industry Council on Material Handling Education (CICMHE) sponsors a Teachers Institute for faculty members who teach material handling and facility logistics topics every two years in the summer of odd-numbered years. The 2005 Teachers Institute will be held June 18-23, 2005 and will be hosted by Laval Universite in Quebec City, Canada.

The purpose of this event is to prepare new faculty for instruction in the field of material handling and facility logistics as well as to update the skills of experienced faculty. The week-long program includes sessions on:

-How experienced faculty are teaching material handling

- -Available resources and references
- -The state of the art and trends in selected equipment and system categories
- New teaching materials
- Teaching methods, to include short cycle methods for

testing modeling skills, and the use of detailed case studies

- Assignments requiring attendees to "get their hands dirty"

- Numerous social outings are also offered, including field

trips and entertainment events.

The Teachers Institute is made possible by a grant from the Material Handling Institute. The grant provides funds for each participant to cover all on-site expenses including housing, meals, local transportation, program materials, local tours and numerous social events ... that's right, you just have to pay your way there and then CICMHE takes care of the rest!

For more information, contact Mike Ogle at mogle@mhia.org, Ben Montreuil at benoit.montreuil@centor.ulaval.ca, or Russell Meller at rmeller@vt.edu.

IEEE-SMC Conference

Yupo Chan is organizing a cluster on "Intelligent Transportation Systems" at the upcoming IEEE-SMC Conference. He invites you to contribute, either as an author, session chair, or both. February 1, 2005 Deadline for submission of proposals for invited sessions (full papers only) March 1, 2005 Deadline for submission of regular papers (full papers only)

June 1, 2005 Acceptance/Rejection notification

July 1, 2005 Full camera ready papers due electronically For more information, please visit http://ieeesmc2005.unm.edu

Reminder: The new TSL mailing list is <<u>transci-logistics</u>-<u>section@list.informs.org</u>>. Members who do not get email sent to the TSL mailing list should let the TSL secretary, Elise Miller-Hooks, know at <<u>elisemh@umd.edu</u>>.

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