

NEWSLETTER

June 2001

Operational Research Society of New Zealand (Inc.), PO Box 6544, Wellesley St. Auckland, New Zealand
<http://www.esc.auckland.ac.nz/Organisations/ORSNZ/>

GUEST EDITORIAL

Friday afternoon and I'm in with our Timetabling Convenor (T/TC), discussing my course requirements for 2002. Now, as any academic quickly finds out, timetabling can make or break classes. Get your star course assigned to the graveyard shift, and you're asking for student numbers to drop off like English backs facing up to Jonah Lomu when with ball in hand ... So the T/TC wields much short-term power.

Now it just so happens that our T/TC is also our ORSNZ President, who happened to be looking for an editorial. The situation reminded me of an assignment our first years had just submitted. The 280 of them had written a report in HTML format, links included, and uploaded it to a common website. It was their responsibility to check it was working, by viewing it at the website. Easy, eh? To prevent students seeing each other's work until after the assignment deadline, a program module had been written with parameter settings. The module was called "keepinghoneststudentshonest". Now it so happened that one of the computer support staff, for reasons unknown, tweaked some of the parameters in such a way that the students couldn't see their own uploaded assignment. In their eyes, it didn't exist. This only became known late afternoon on the day before the 12:00 noon submission deadline. Well you can imagine. Messages began flying all over the place as assignments hit the system en masse. The submission deadline got quickly changed to lower the stress levels. The resolution of the chaos took some time, for the module programmer was overseas. Now as systems people know, it's fine to tweak a system if you know it needs it, but pragmatic ones also know, it pays to know whose system you're tweaking. In this case, it happened to be the support group manager, who had set up and tested the system before taking a few days' leave. Being a fly on the wall when system manager/developer first met up with system tweaker would have been good entertainment.

So systems tinkering and systems design requires understanding the current system. We all know that, self-evident really. But therein lies a real issue. Understanding the current system is a skill closer to an art than a science. Cook books with easy to follow recipes have yet to be written, and I doubt if retired professors have one in mind (although the Canterbury one has a recent book which certainly helps). OR practitioners all have their war-stories of missing/overlooking some aspect of the current system, which led to poor "problem definition", that came to haunt them later. Hopefully, learning follows. But that doesn't help our students much.

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Publication dates: March, June, September, December

Deadline for submissions: on the 15th of February, May, August, November (for following month's issue)

Send submissions as word attachments by email to Production Manager, Tricia.Lapham@vuw.ac.nz



It's hard stuff to learn; even more difficult to "teach". So it's easy to move on to the fun stuff of modeling and algorithms, well inside the academic comfort zone. This sidesteps the issue of course, so where to turn? One alternative is a solid dose of problem structuring and soft OR, which offer steps and accompanying tools to work through the early stages of a project. Jonathan Rosenhead's "Rational Analysis for a Problematic World" is still a fine introductory coverage of five softer options. Two recent New Zealand Systems books - Hans Daellenbach's "Systems and Decision Making" and Kambiz Maani, Robert Cavana's "Systems Thinking and Modelling" - give some mention in their earlier chapters. Accompanying tools, like "Decision Explorer" for Cognitive Mapping are now well tested. However, I'll go further and posit that **a necessary condition for OR to break into the Management sector is for hard OR to imbed itself inside the soft OR framework**. For not only does this framework provide a set of skills for problem investigation which recognizes inter-personal and political issues, but such a move would parallel the trends in management education (more generally), resulting in a better balance between analysis and the more subjective areas, and may even enhance OR's influence in business schools (JORS 43: 557-561).

So back to the T/TC. He asked for two paragraphs and got four. On the strength of that, all my 2002 will be in prime slots, in the best rooms, and you won't be hearing from me again!

Hope you're all having a good year.

JOHN SCOTT Ph.D (in mathematical optimization and scheduling)(sic), Department of Management Systems, University of Waikato, e mail:JLS@mngt.waikato.au.nz

TWENTY NAUGHT ONE CONFERENCE

Call for papers

The University of Canterbury's Department of Management is pleased to host Conference Twenty Naught One of the Operational Research Society of New Zealand.

We welcome papers on practical applications.

Abstracts – submission deadline 28 September 2001

Submit your abstract of 200 words or less, in plain text, by email to the editor of the Conference Proceedings, John F Raffensperger (j.raffensperger@mang.canterbury.ac.nz). We will notify authors of acceptance by 6 October 2001. We prefer email submission, but if you wish, you may post your printed abstract to: ORSNZ Twenty Naught One, Department of Management, University of Canterbury, Private Bag 4800, Christchurch, New Zealand.

Final papers deadline 3 November 2001

Following acceptance of your abstract, we will ask you to submit a full-length paper for publication in the Conference Proceedings. These proceedings will be distributed to all participants and to all ORSNZ members. Full length papers should be submitted by email in PostScript (.ps) or Adobe Acrobat (pdf) format and should be no more than 14 single spaced typed pages when printed. For style and format, please read the detailed guidelines on our web site www.orsnz.org.nz.

See you at Conference Twenty Naught One!

**JOHN RAFFENSPERGER, University of Canterbury,
e mail:j.raffensperger@mang.canterbury.ac.nz**

LETTER FROM THE PRESIDENT

First I would like to thank the outgoing Newsletter team, especially Vicky Mabin as Editor, and Tricia Lapham as Coordinator. You have kept up the high standards that you inherited. This has been very important and is much appreciated by the Membership, as its newsletter is one of the main gauges of the success of any society. Next, I'm glad to be able to report that Vicky Mabin has agreed to carry on as a Council member, with the special responsibility of being our IFORS/APORS representative. Anyone who knows Vicky, with her expertise, diplomacy, and very positive personal qualities, will welcome this news. Finally, I'd like to welcome the new Newsletter team of Fritz Raffensperger as Editor (Fritz is already Christchurch Branch Chair), and Joan Mawson as Coordinator. My best thanks to this dynamic Christchurch duo for picking up the football and carrying it forward.

I have been looking over the issues of **New Zealand Operational Research** (NZOR), which flourished as the journal of the Society from 1973 until 1986. At that time the journal merged with the **Asia Pacific Journal of Operational Research** (APJOR), and, in a sense, the latter journal was, until the end of 1997, the flagship of the Society. It's interesting to read the papers, written by members and others, that appeared in those journals. Of course, there were marked changes in the papers over these years, both in topic and spirit. However the trends are, in part, peculiar to Australasia, and are not uniformly consistent with trends that have occurred in northern hemisphere journals over the last quarter century.

For instance, in the early days of NZOR there were many expository articles (that is, papers that are interpretive, without necessarily containing new material) on a variety of topics. These topics included: graph theory, Bayesian statistics, road safety, traffic planning, control theory in marketing, geometric programming, stochastic programming, vehicle scheduling, goal programming, non linear programming, simulation, shortest path algorithms, packing problems, mathematical programming software, and multiple objective mathematical programming. A high proportion of the articles appearing in the journal are single-authored. But it's not just in these matters where we have bucked overseas trends. There is a high proportion of practical/case study articles and, for a general OR journal, an unusually high proportion of papers dealing with non deterministic matters.

These trends came to an abrupt halt with the merger with APJOR. During the flagship years there were no expository articles and there was a marked increase in the average number of authors per article. The theme of "This is a practical problem from industry, and this is what I did about it", virtually disappeared.

Of course, this analysis cannot be complete without a discussion of the papers, and other reports, published by members elsewhere. Two of the obvious venues that should be commented upon are the ORSNZ conference papers and the ORSNZ conference proceedings. As the last issue of this newsletter for the year will appear at the Annual Conference or thereabouts, I plan to comment in this column, on conference trends at that time. I'll be very sad if I haven't stirred up a few hornets' nests with the above remarks. So this is a great opportunity for you to fire off a withering rebuttal in time for the December issue. I look forward to discussing these matters with you in Christchurch. In the meantime, please keep up the rich variety of practical and theoretical work, containing both the deterministic and the stochastic, that makes an OR society as small as ours unique.

LES FOULDS, University of Waikato, e mail: lfoulds@waikato.ac.nz

STUDENT GRANTS-IN-AID FOR THE ANNUAL CONFERENCE OF ORSNZ, CHRISTCHURCH, NOV- DEC, 2001

Full-time students who are giving a paper at the above conference are eligible for travel assistance from ORSNZ. Students who plan to give a paper should send a letter to the President of ORSNZ to apply for travel assistance. Their letter should be countersigned by their supervisor or Department Chair, confirming that they are currently enrolled for a full-time course.

Grants, including the level of emolument, will be decided at the Council meeting to be held early July.

LES FOULDS, President ORSNZ, e mail: lfoulds@waikato.ac.nz

THE ORSNZ HANS DAELLENBACH PRIZE

To honour the considerable contributions of Emeritus Professor Hans Daellenbach to OR/MS in New Zealand, the ORSNZ has established the ORSNZ Hans Daellenbach Prize. The purpose of this award is to elicit, recognise, and reward outstanding examples of management science and operations research in New Zealand, and to encourage their dissemination in the international literature. Candidates for the prize must be members of ORSNZ. The Prize is accompanied by a \$1000 honorarium, and winners must give a plenary address on their relevant work at the ORSNZ conference in the year of the award. The Prize is awarded every two years, at most. The inaugural Prize will be presented at the 36th Annual ORSNZ Conference in Christchurch, late in 2001.

I have much pleasure in announcing that the unanimous decision of the prize panel is to award the Prize to **Professor David Ryan**, of the Department of Engineering Science, University of Auckland for his focussed and groundbreaking body of work on scheduling problems, and its application to crew scheduling in the New Zealand airline industry. This is an excellent example of the kind of theoretical and applied work that this award is designed to recognize. David's work has also received international recognition, as evidenced by many prestigious publications in the top OR/MS journals.

Congratulations David, we are all looking forward to hearing your plenary in Christchurch.

LES FOULDS, President, ORSNZ, e mail: lfoulds@waikato.ac.nz

NEW ORSNZ WEB AND EMAIL ADDRESSES

The ORSNZ now has its own Web address, www.orsnz.org.nz. (This is hosted by Quicksilver who manage all the clever redirection behind the scenes.)

You can visit www.orsnz.org.nz to get contact information for members, details of upcoming events, access to global OR resources, copies of our newsletters, papers from our conference proceedings, and lots more. To go with the new Web address, we also have the following email addresses that we encourage everyone to use; these will stay the same even if the people behind them change. The new emails are:

president@orsnz.org.nz
vicepresident@orsnz.org.nz
secretary@orsnz.org.nz
treasurer@orsnz.org.nz
newsletter@orsnz.org.nz

To contact the regional chairs, try

auckland@orsnz.org.nz
wellington@orsnz.org.nz
christchurch@orsnz.org.nz

Correspondence on the upcoming ORSNZ conference should be sent to conference@orsnz.org.nz, while Web enquires can be addressed to webmaster@orsnz.org.nz. Finally, if you're liaising with outside bodies such as IFORS, please ask them to contact us at liaison@orsnz.org.nz

ANDREW MASON
webmaster@orsnz.org.nz

OR SOCIETY OF JAPAN CONFERENCE

In early May I was fortunate enough to be invited by the OR Society of Japan to attend its annual conference. This was part of a recently established Japanese practice of bringing to the conference one representative from each of about ten OR societies in the Asia-Pacific region.

Those of us so invited presented papers in a special "International" session, which dished up a smorgasbord of OR topics delivered by presenters with a diverse range of backgrounds.

One speaker (T.C. Chen of Chang Jung University) described a fascinating piece of software, capable of designing an optimal PC from a list of available components (hard drives, sound cards, etc.). Having solved that problem, it then contacts the various manufacturers and places electronic orders for the chosen parts. Fitting all the pieces together is apparently left as an exercise for the user.

A small Taiwanese contingent focused on airline yield management problems, looking in particular at dependencies and correlations between flight segments (e.g. the two halves of a round trip).

Sam Drake, of Australia's Defence Science and Technology Organisation, took us through one of the lesser-known uses of the Global Positioning System, with a simple stochastic model of what happens when several hundred receivers try to use the GPS signal to keep their clocks precisely synchronised.

Other applications covered, included optimal maintenance of bus engines under stochastic wear (Francis Leung, City University of Hong Kong); packing steel coils in rail wagons (Niloy Mitter, Tata Steel; a classic knapsack problem); and road traffic management (Nathaniel Noriel, Land Transport Authority of Singapore). The theoretical side of OR was not forgotten either, with a paper on non linear optimisation by Ping Zhong of the China Agricultural University.

My own presentation was a variant of the one I gave at the last ORSNZ conference in December, on the must-run dispatch auction in the New Zealand wholesale electricity market. The topic elicited some interest from the mainly Japanese audience, as there is not yet a deregulated market for electric power in Japan.

In all, a most interesting few days spent in the company of these people and their various interests. Thanks are due to the ORSJ and Daiwa House Securities, who sponsored our attendance.

GEOFF PRITCHARD, Auckland University, e mail: g.pritchard@auckland.ac.nz

PROGRAMMERS WANTED

ODT *Optimal
Decision
Technologies*

Optimal Decision Technologies Ltd is an Auckland-based company that specialises in developing optimisation systems for scheduling. We have extensive experience in airline and personnel scheduling and enjoy close links with the OR research group at the University of Auckland. We are seeking software developers with experience in C, C++, Visual Basic, databases, and/or Windows programming, preferably with an OR background. If you enjoy writing code to solve real problems, then contact us at jobs@odtl.co.nz.



TONY AND TAPAS: TWO STALWARTS RETIRE FROM VUW



Tony Vignaux and Tapas Sarkar were two of my longest standing colleagues at Victoria. Tony, indeed, outlived me at both ends: he was appointed to the Chair in Information Science a couple of years before I joined the University, and he retired a year after I did. What is more we were colleagues briefly even before that, soon after Tony arrived at the Applied Maths Lab of the then DSIR, and before I deserted them, and (what is worse) took their top table tennis player with me.

So my contacts with Tony go back a long way, to the days when he was actively promoting the fledgling OR Society, even to the extent of persuading unlikely mathematical creatures such as myself to join. Over the years we have been involved with many ventures together. I remember vividly the pleasure I felt when he asked if I could stand in for him while he took his first-ever period of sabbatical leave. With colleagues like John Hine and Bruce Bensemann already about, and nothing more demanding than a course on simulation and variance reduction methods to cover, the work was a sinecure, but the experience was enriching. Tony always had a punning wit, and it took me a little while to figure out the unusual circular shaped object, from one of his children, which hung above his desk. It was called “A Round Toit” and was apparently something he complained about never getting.

More significantly, Tony and Frazer Jackson were my principal accomplices in creating the Institute of Statistics and Operations Research, which enjoyed a chequered history over the next two decades. It started off life as a meeting ground for the proponents of both subjects scattered individually around the University; enjoyed care-free days in 44 Kelburn Parade, out of the eyes of bureaucrats; moved across to enlarged premises

and a more ambitious programme in the Cotton Building; but was cut back to size and a more dependent role when the School of Mathematical and Computing Sciences was formed. The combination of OR and Statistics always seemed to me a natural one, brought up as I was on applied probability modelling, which is of importance to both without being the centre of either. At the least it was an excellent launching pad for a variety of programmes, such as the Honours and Diploma Programmes in Stats and OR, which, under the careful guidance of Tony and Tapas, produced a steady stream of well-trained and capable OR graduates, many of whom stayed on further to do a Masters degree. Their care for the detail of the courses that they ran, and of their students, was a hallmark of the OR programme that they set up and ran. It was something that those of us on the Statistics side looked on with admiration, and must represent a huge contribution to the OR profession over the years.

Tony's enthusiasm was infectious, both to students and colleagues, and nowhere more so than in his advocacy of Bayesian methods, especially of Jaynes' "maximum entropy" ideas. To a physicist, as Tony was by training, Bayesian methods have always been attractive, for they take the uncertainty out of the external universe and place it in the eyes of the beholder, leaving the physicists' deterministic theories full rein. Moreover, a logically consistent procedure for estimation is required, and no other approach can compare with the Bayesians' in this respect. Jaynes' trenchant and witty criticisms of "classical" statistical estimation (in inverted commas, for the Bayesian approach by far predates the Neyman-Pearson formulations) should be compulsory reading for statisticians, wherever the ultimate truth may lie. As for Jaynes' own attempts to extend Jeffreys' notion of objective priors, thus taking away the one aspect (its subjective basis) which must lessen the Bayesian appeal to physicists, I use them and find them of extreme interest, but I have to say that I think the verdict is still out - my own feeling is that the Maximum Entropy formulation never quite succeeds in escaping the many logical and computational knots which surround estimation theory in general. I shall miss the many references that adorned Tony's shelves, and to which I had regular recourse over the years.

Tapas came later, and I was in from the beginning of his career at Victoria, for his was one of the first Appointment Committees to which I was nominated. I was impressed by the quality of the applications for the position, his in particular, and distressed by the visa complications which surrounded his appointment. At the time they provided a graphic demonstration of a fact I had become aware of some years earlier, that in reality New Zealand's low-key immigration policy embraced discriminatory practices which rivalled those of our White Australian neighbour. At least it had the merit of being vulnerable to combined academic and personal string-pulling, and so ultimately Tapas was fully and properly instated to become, of course a model example of an Asian immigrant, in his services to the University, and also to his fellow-countrymen in New Zealand. His self-effacing mode of operation, and extreme modesty, meant that the rest of us only grew gradually to appreciate his underlying qualities. Like the perfect civil servant, he always respected the views of his seniors, while at the same time providing them with valued advice and support. His true qualities really came to the surface when he served as the Chairman of the Stats and OR Group during its first difficult years in the School of Mathematical and Computing Sciences, negotiating many a political and personal minefield with true Indian diplomacy.

The OR Programme which Tony, and later Tapas, developed at Victoria has been unique in New Zealand. Their dedication to inculcating high standards of both understanding and practical competence in their students, has served their profession well, while setting a teaching precedent which others will find it hard to emulate.

**DAVID VERE-JONES, Victoria University of Wellington,
e mail: David.Vere-Jones@mcs.vuw.ac.nz**

PRINCIPLES OF FORECASTING

A Handbook for Researchers and Practitioners, by J. Scott Armstrong is now available from Kluwer. It uses knowledge from experts and empirical studies to provide forecasting principles. The 30 chapters cover all types of forecasting methods: judgmental, such as Delphi, role-playing, and intentions; and quantitative, such as conjoint analysis, econometric methods, expert systems, and extrapolation. Special pre-publication price of \$US150. Details at <http://forecastingprinciples.com>

J. SCOTT ARMSTRONG, e-mail: armstrong@wharton.upenn.edu

OR DISPATCHES FROM AUCKLAND

The Auckland Branch of ORSNZ has been having a busy semester. We inducted a large group of students into the Society at a very successful student function held during Orientation Week in March. The academic members of the Society seem to spend much of their free time travelling abroad promoting our subject and maintaining linkages with overseas collaborators. Andy Philpott spent a few days in Easter acting as a PhD examiner and catching up with ex-ORSNZ secretary Mikael Ronnqvist in Linköping. As I write this, Dave Ryan and Andrew Mason are preparing to travel to Maui to present papers at INFORMS, while Phil Neame and Andy Philpott will be presenting papers at an Optimisation in Industry Conference in Queensland in early July. Dave will also be presenting a keynote address at the EMA Rostering and Shiftwork Conference to be held in Wellington on June 28th. It is worth noting that Andrew's paper "Supply chain optimization in pulp mill industry" (jointly authored with Mikael Ronnqvist and colleagues) has been selected as one of the three finalists in the EURO Award for Excellence in Practice on Operations Research to be held at the EURO conference in Rotterdam, in July.

Though it might seem so, the traffic is not all in one direction. We have hosted a number of visitors since March. These have included:

Professor Egil Hreinsson from Iceland, who gave us a talk about hydro-electric scheduling in Iceland – one of the few countries it seems with a surplus of electrical energy.

Professor Eddie Anderson from AGSM, Sydney who was reviewing the Auckland MSIS Department, and took the opportunity while here to contribute to some electricity market research.

Dr Janos Pinter from Dalhousie University and Pinter Consulting Services, who talked about LGO, his global optimisation software.

Dr Veronique Bugnion from M.I.T. who is an expert in ensemble weather forecasting – a useful modelling tool when trying to evaluate weather derivatives.

**ANDY PHILPOTT, Branch Chair, Auckland University,
e mail: a.philpott@auckland.ac.nz**

FROM THE MAINLAND

Plans for Conference Twenty Naught One are in full swing! Call for papers - the deadline for submission of abstracts is 28 September. We are also planning the Canterbury Reunion 2001, after the Conference.

Our conference web site is <http://www.mang.canterbury.ac.nz/orsnz/conf2001/>.

**JOHN F. RAFFENSPERGER, University of Canterbury,
e mail: j.raffensperger@mang.canterbury.ac.nz**

WAIKATO NEWS

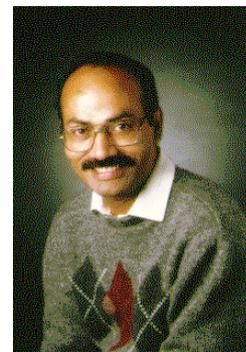
Les Foulds

Les Foulds was born in Auckland, received an MSc with honours in mathematics from the University of Auckland in 1972, and a PhD in OR from Virginia Tech in 1974. He was a lecturer at Massey University, a senior lecturer at the University of Canterbury, a Full Professor at the University of Florida, and has been the Professor of Management Systems at the University of Waikato since 1985. He has held visiting fellowships in universities and research institutes in: North America, Great Britain, Ireland, Australia, Scandinavia, Germany, China and Japan. He teaches project management, quality, world class operations, and facilities planning. He has published books and papers on optimisation, applied graph theory, traffic engineering, scheduling, and layout. His current research interests are in developing decision support systems, based on these approaches, for the agriculture, transport, and manufacturing industries. His leisure interests include: yoga, running, philately, Victorian novels, and imbibing liberal quantities of fine red wines.



Chuda Basnet

Chuda Basnet is Senior Lecturer at the University of Waikato. Chuda's baccalaureate is in mechanical engineering and in a previous life, Chuda has worked as a production engineer in a structural firm, and as an aircraft maintenance engineer with an airline. After acquiring a PhD from Oklahoma State University in industrial engineering, he started teaching in 1991 when he came to New Zealand, joining the staff at the Department of Management Systems at the University of Waikato. Chuda specializes in production planning, manufacturing modelling and vehicle routing. For the past few years he has assisted some dairy companies regarding the scheduling of their milk tanker fleets. Originally from Nepal, Chuda enjoys the outdoors and the rugby (as a spectator only) in New Zealand.



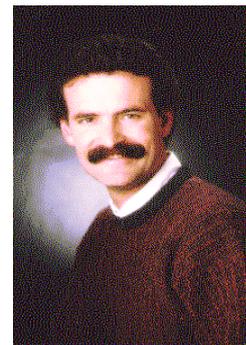
John Buchanan

John was born in Christchurch (on the mainland) a while ago. He is an Associate Professor of Management Systems in the Waikato Management School was co-chairperson of the department for six years. John received his doctorate in Operations Research from the University of Canterbury way back in 1985, on the topic of solution methods for multiple objective decision models. Much of his research has continued in this area of decision-making, though he still finds it hard to make decisions. He has also researched in the areas of machine scheduling and approaches to student centred teaching. This research has been mixed with practical consulting work for a number of different organisations over the last ten years, following from the three years he spent as a Senior Consultant with Price Waterhouse Management Consultants prior to joining the university. John's teaching covers introductory Information Systems, Operations Management and Systems Thinking / Learning Organisations. His other interests include: cricket, making puzzles, most games and reading.



Jim Corner

Jim Corner was born in Cleveland, Ohio and all his education was in the US. He holds a BS in mechanical Engineering from the University of Virginia (1976), an MBA from the University of Wyoming (1987), and a PhD from Arizona State University (1991). His PhD thesis was on approximation techniques in multi attribute decision analysis. Since then, he has lived in New Zealand and his research has centred in the world of multi attribute/multi criteria decision making, as well as in the area of behavioural or descriptive, decision making. He currently is branching his research interests into supply chain management and the use of IT to support this. Prior to his academic career, Jim was a design engineer for Texas Instruments, and later held various management positions with US Steel (now USX) in their mining division. Jim currently teaches classes in decision-making, research methods, and IT. His outside interests are tramping, fly fishing, all river sports, tennis and basketball.



WELLINGTON NEWS

The Wellington Branch has got off to a great start this year under the enthusiastic leadership of David Boland as Branch Chair. We have had two very successful and well-attended seminars so far, the first with Pamela Mazoyer on Learning Organisations, and the second by Dr Tapas Sarkar. A third is scheduled for 26 June, with Sue Paul, a recent graduate of VUW now with PA Consulting, speaking on fisheries modelling using Bayesian methods, the topic of her masters research supervised by Emeritus Prof Tony Vignaux and Dr Yu Hayakawa.

FAREWELL SEMINAR – DR TAPAS SARKAR - 15 MAY 2001

Early Operational Research and Implications for Management Today – 40 years on

Tapas Sarkar started in Operational Research nearly 40 years ago when there were very few textbooks and almost no experts to run to. As he explained, there was hardly any computing power, only primitive calculators and measuring instruments, and even collecting data was almost impossible. But his stories conveyed, now as then, how much can be achieved using “uncommon common sense” and a quantitative frame of mind. He described for example, techniques he used in field trials to validate recommendations and to convince sceptical and apprehensive management. He told us how he contended with situations when the operational research solutions were contrary to management’s expectations. As expected, Tapas enthralled his audience of “old” friends from DSIR and ORSNZ, colleagues and current students - entertaining and enlightening with tales of such early OR experiences in India.

He told of when DR Cox, the eminent Queuing Theorist, allowed him to embark on a self-taught OR course during his actuarial training at Birkbeck; and how and when on his insistence! he was given a teaching position at the Indian Institute of Technology. And then in telling us with hilarity of his “hours of darkness” data gathering expeditions in the shunting yards of Indian Railways, we were reminded of the directness, wit and humour, the modesty and the self-deprecating yet confident nature of the man.

Tapas Sarkar majored in mathematics from India and having passed the Fellowship examination of the Institute of Actuaries, at Birkbeck College London, started his Operational Research career in the Indian Institute of Technology management school. He went on to Stanford to get his first formal training in Operational Research in the form of a PhD program, then back to India for a post PhD Operational Research project. He joined Victoria University in 1979 and now approaches retirement from the Operational Research Group of the School of Mathematical and Computing Sciences.

He has served VUW well over the last twenty years, exuding enthusiasm to the end, and displaying the same dedication to his students that has made him many friends and much respected amongst the student body. Like Tony Vignaux, his closest colleague at VUW, Tapas belongs to the academic elite of his generation. Like Tony, his working life has spanned the birth and growth of OR in industry and in the university system. Tapas has made a significant contribution to academia as a scholar, and to his colleagues and students as a friend. His final seminar reminded us how much we will miss having him around.

JOHN DAVIES, Victoria University of Wellington, e mail: John.Davies@vuw.ac.nz

MARKING TIME

It's that time of year that those in academia are swamped with marking assignments and exams. Here's a gem I came across: "A system is a set of interdependent components that work together to achieve the goal. In this case, the goal of (Airline X) is to make their customers satisfied and this can be done only by providing regular service, ie. taking customers to their detonation safely and timely."

VICKY MABIN, Victoria University of Wellington, e mail: Vicky.Mabin@vuw.ac.nz

FAREWELL FROM THE WELLINGTON NEWSLETTER TEAM

This time it really is our last issue! As you will have read or heard, the Canterbury team is taking over the Newsletter from next month. We've already issued our swansong at the end of last year, so there's no need to do that again. But we would like to wish Fritz and Joan all the best, and to wish them a good term as newsletter editor/coordinator. We have found it to be a good way to keep abreast of the Society's activities. And we'd like to say thank you to all our contributors and readers for your support. Do keep sending items to the new team. As for us, we can now settle back in an armchair and read our newsletters with fresh eyes every quarter!

VICKY MABIN and TRICIA LAPHAM, Victoria University of Wellington, e mail:
Vicky.Mabin@vuw.ac.nz, Tricia.Lapham@vuw.ac.nz

POSITION AVAILABLE

Research Fellow Grade 2 - Department of Mathematics and Statistics

Statistics: you will work on a project funded by an ARC-SPIRT grant in conjunction with Normandy Mining, aimed at developing methods of optimising the design of underground mines. A major focus is the layout of the main components (tunnels, shafts etc). It involves investigating methods of minimising both discrete and continuous functions, as well as developing practical implementations.

The Person: You will have a PhD in mathematics with research interests in operations research or optimisation, including combinatorial optimisation, or relevant computational geometry. Experience with algorithms and their implementation, and programming skills, are essential. Experience with computational methods and development of software for industrial applications is highly desirable. Experience in computational work on some kind of optimisation, in particular network or graph optimisation, will be an advantage.

The Benefits: Salary A\$52,548 - A\$62,400 p.a. plus 8 percent employer superannuation contributions, salary packaging options and staff development and training opportunities.

Employment Type: This is a fixed term position available from 1st September 2001 for two years.

Contact: Assoc Prof Nick Wormald, tel. +61 3 8344 4455; fax +61 3 8344 4599 or email
nick@ms.unimelb.edu.au.

Applications To: Deputy Principal, Human Resources, The University of Melbourne, Victoria, 3010, Australia; fax +61 3 8344 6080 by 25 June 2001. Quote position number Y0009885 and include the names, phone, facsimile numbers and email addresses of three referees in your application.

YOUNG PRACTITIONER'S PRIZE

The Young Practitioner's Prize competition is open to authors, who on 1 December 2001, are under 25 years of age. Papers must be singly authored. The prize will be awarded at the ORSNZ Conference Twenty Naught One.

JOHN.RAFFENSPERGER, University of Canterbury,
e mail: j.raffensperger@mang.canterbury.ac.nz

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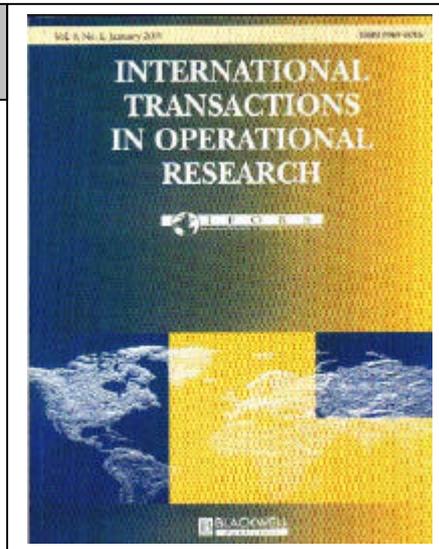
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MEETINGS CALENDAR FOR 2001 AND BEYOND

Wellington Branch Meeting, 26 June 2001, 5.30pm, Sue Paul: Fisheries modelling using OR and Statistics.
Contact David Boland on e mail: boland.d@paradise.net.nz

Wellington Branch Meeting, 11 July 2001, lunchtime: Scott Armstrong.
Further details contact David Boland on e mail: boland.d@paradise.net.nz

10th Biennial Computational Techniques and Applications Conference, 16-18 July 2001, University of Queensland, Brisbane, Australia
Details on <http://conference.maths.uq.edu.au/ctac2001>

Systems Dynamics Society 19th International Conference, 23-27 July 2001, Emory Conference Centre, Atlanta, Georgia, USA
Details on <http://www.systemdynamics.org>

Industrial Engineering and Production Management Conference, 20-23 August 2001, Quebec, Canada.
Details on <http://www.iepm.net>

International Conference on Integrated Logistics 2001, 21-24 August 2001, Nanyang Technological University, Singapore.
Details on <http://www.peerview.com/logistics2001>

OR43 Annual Conference of UK Operational Research Society, 4-6 September 2001, University of Bath, United Kingdom.

45th Annual Meeting of the Australian Mathematical Society, 22-26 September 2001, Australian National University,
Details on <http://www.maths.anu.edu.au/conferences/AustMS2001>

ASOR 16th National Conference, 23-27 September 2001, McLaren Vale, Adelaide.
Deadline for submission of abstracts 3 July
Details on <http://www.dsto.defence.gov.au/corporate/conferences/asor>

Third World Manufacturing Congress, 24-27 September 2001, Rochester Institute of Technology, New York, USA.
Details on <http://www.icsc.ab.ca/wmc2001.htm>

17th International Logistics Congress, 18-20 October 2001, Greece.
Details on <http://www.ilc2001.org>

7th Annual Conference of ANZSYS, Australia New Zealand Systems Society, 27-28 November 2001, Hotel Rendezvous, Perth, Australia. Abstract submission: July 6 2001
E mail: whutchinson@ecu.edu.au

ORSNZ Twenty Naught One Conference, 29 Nov-1 Dec, University of Canterbury, Christchurch, New Zealand
Details on <http://www.mang.canterbury.ac.nz/orsnz/conf2001>

IEEE International Conference on Data Mining, 29 November-2 December 2001, San Jose, California, USA.
Details on <http://kais.mines.edu>

MODSIM 2001 Conference, 10-13 December 2001, Australian National University, Canberra, Australia.
Details on <http://cres.anu.edu.au/~tony/modsim2001.htm>

First International Conference on Autonomous Intelligent Systems (ICAIS), 12-15 February 2002, Deakin University, Geelong, Australia.
Details on <http://www.icsc-naiso.org/conferences/icais2002>

Sixth International Research Conference of Quality, Innovation and Knowledge Management, 18-20 February 2002, Sunway Lagoon Hotel, Kuala Lumpur, Malaysia
Details on <http://www.monash.edu.au/oce/qikconference>

31st Annual Meeting of Western Decision Sciences Institute, 2-5 April 2002, MGM Grand, Las Vegas, Nevada, USA.
Submission deadline 1 October 2001
Details on <http://misnt.calpoly.edu/wdsi>

7th International Conference of the UKSS, Systems Research & Practice in the Knowledge Age, 7-10 July 2002, University of York, England.
Abstract submission: 15 July 2001
E mail: UKSSConference2002@hotmail.com

OFFICERS OF THE OPERATIONAL RESEARCH SOCIETY OF NEW ZEALAND: 2001

President

Les Foulds
Department of Management
Systems
The University of Waikato
Private Bag 3105
Hamilton
Phone: (64 7) 838 4127
Fax: (64 7) 838 4270
lfoulds@waikato.ac.nz

Vice President

John Davies
School of Business & Public
Management
Victoria University of Wellington
P.O. Box 600
Wellington
Phone: (64 4) 463 5382
Fax: (64 4) 463 5253
john.davies@vuw.ac.nz

Secretary

Chuda Basnet
Department of Management
Systems
The University of Waikato
Private Bag 3105
Hamilton
Phone: (64 7) 838 4562
Fax: (64 7) 838-4270
chuda@waikato.ac.nz

Treasurer

Kevin Broad
ORBIT Systems
PO Box 113-200
Broadway Post Centre
Auckland
Phone: (64 9) 523 5407
Fax: (64 9) 523 5402
kevin.broad@orbitalystems.co.nz

Council Members

John Buchanan
Department of Management
Systems
The University of Waikato
Private Bag 3105
Hamilton
Phone: (64 7) 838-4470
Fax: (64 7) 838-4270
jtb@waikato.ac.nz

Jim Corner
Department of Management
Systems
The University of Waikato
Private Bag 3105
Hamilton
Phone: (64 7) 838-4563
Fax: (64 7) 838-4270
jcorner@waikato.ac.nz

Shane Dye
Department of Management
University of Canterbury
Private Bag 4800
Christchurch
Phone: (64 3) 364 2886
Fax: (64 3) 364 2020
s.dye@mang.canterbury.ac.nz

Graeme Everett
Norske-Skog Ltd
Tasman Pulp and Paper Mill
Private Bag 3083
Kawerau
Phone: (64 7) 323 3708
Fax: (64 7) 323 3699
Graeme.Everett@norske-
skog.co.nz

Vicky Mabin (**APORS/IFORS
Rep**)
School of Business & Public
Management
Victoria University of Wellington
P.O. Box 600
Wellington
Phone: (64 4) 463 5140
Fax: (64 4) 463 5253
vicky.mabin@vuw.ac.nz

Andrew Mason
Department of Engineering
Science
The University of Auckland
Private Bag 92019
Auckland
Phone: (64 9) 373 7599 ext 7909
Fax: (64 9) 373 7468
a.mason@auckland.ac.nz

Kerry Mayes
M-co The Marketplace Company
Limited
PO Box 5422
Wellington
Phone: (64 4) 473 5240
Fax: (64 4) 473 5247
kerry.mayes@m-co.co.nz

Nicola Petty
Department of Management
The University of Canterbury
Private Bag 4800
Christchurch
Phone: (64 3) 364 2190
Fax: (64 3) 364 2020
n.petty@mang.canterbury.ac.nz

Andy Philpott
Department of Engineering
Science
The University of Auckland
Private Bag 92019
Auckland
Phone: (64 9) 373 7599 ext 8394
Fax: (64 9) 373 7468
a.philpott@auckland.ac.nz

Branch Chairs

Tiru Arthanari (**Auckland**)
Department of Engineering
Science
The University of Auckland
Private Bag 92019
Auckland
Phone: (64 9) 373 7599 ext 2452
Fax: (64 9) 373 7468
t.arthanari@auckland.ac.nz

David Boland (**Wellington**)
Boland Associates Limited
4 Hicks Crescent
Waikanae
Phone: (64 4) 902 3889
boland.d@paradise.net.nz

Fritz Raffensperger
(**Christchurch/Newsletter
Editor**)
Department of Management
The University of Canterbury
Private Bag 4800
Christchurch
Phone: (64 3) 364 2987 ext 8616
Fax: (64 3) 364 2020
j.raffensperger@mang.canterbury.
ac.nz

Newsletter Coordinator

Joan Mawson
Department of Management
The University of Canterbury
Private Bag 4800
Christchurch
Phone: (64 3) 364 2987 ext 6606
Fax: (64 3) 364 2020
j.mawson@mang.canterbury.ac.nz

