Ajay S. Aravamudhan

Contact Living Analytics Research Centre

Information Singapore Management University

School of Information Systems Mobile: +65-9076-4167 80 Stamford Road Fax: +65-6828-0468

Singapore 178902 E-mail: ajaysa@smu.edu.sg

Citizenship India

Research Interests Optimization, game theory, resource scheduling under uncertainty, single and multiagent decision making

Education Singapore Management University, Singapore

M.S., Operations Management, August 2011

- Thesis Topic: Optimal Advertisement Scheduling in Random Breaks Adviser: Professor Pascale Crama
- We study ad scheduling policies in live broadcasting when breaks are of nondeterministic lengths and number. We characterize the optimal dynamic schedule in a simple setting with two ad lengths, and also present heuristics to solve the full size scheduling problem.
- ★ Graduated Cum Laude

Anna University, India

M.C.A, Computer Science and Engineering, June 2002

- Systems software specialization
- * Graduated with Distinction (top 8%)

ACADEMIC APPOINTMENTS

Research Engineer

August 2011 to present

Living Analytics Research Centre, Singapore Management University

• Research topic: Flow Behavior Modeling and Coordination in Dynamic Spatial-Temporal Networks

Supervisor / PI: Professor Lau Hoong Chuin

Co-PI: Professor Pradeep Varakantham, Dr. William Yeoh

• We study the problem of crowd congestion in theme parks, and model it as a dynamic spatial-temporal network in order to create real time contextualized incentives to affect agent behavior and improve park utilization.

Papers in Preparation Pascale Crama, Dana Popescu, Ajay S. Aravamudhan

Maximizing advertising revenue when scheduling in random breaks

• Presented at INFORMS conference, November 2010

Awards

Singapore Management University

• Graduate Research Scholarship, 2009–2011

Professional Experience Engineer, Samsung Electronics Co. Ltd. Engineer, SCM Microsystems

January 2005 to February 2009 August 2002 to September 2004

 Embedded software development for inter-device communication protocols such as USB and wireless USB

SOFTWARE SKILLS Modeling Languages and Solvers:

- Matlab, GAMS, Lingo, IBM OPL Studio
- CPLEX

Computer Programming:

• C, C++, Javascript, shell scripting

REFERENCES AVAILABLE TO CONTACT

Dr. Pascale Crama (e-mail: pcrama@smu.edu.sg; phone: +65-6828-0330)

- Assistant Professor of Operations Management, Singapore Management University
- \diamond Lee Kong Chian School of Business, 50 Stamford Road Singapore 178899
- \star Dr. Crama was my graduate adviser.

Dr. Dana Popescu (e-mail: dana.popescu@insead.edu; phone: +65-6799-5435)

- Assistant Professor of Technology and Operations Management, INSEAD
- ♦ 1, Ayer Rajah Avenue, Singapore 138676
- * Dr. Popescu is a mentor and a co-author of the paper we are working on with Dr. Crama.

Dr. Pradeep Varakantham (e-mail: pradeepv@smu.edu.sg; phone: +65-6828-0519)

- Assistant Professor of Information Systems, Singapore Management University
- ♦ School of Information Systems, 80 Stamford Road Singapore 178902
- * Dr. Varakantham is a mentor and a co-investigator in Living Analytics Research Centre, Singapore Management University.