



**Call for Papers**  
Special Issue of the *System Dynamics Review*

**Theme: System Dynamics and Transportation**

Guest Editors: *Simon Shepherd<sup>a</sup>*  
*Guenter Emberger<sup>b</sup>*

The potential of system dynamics for analysis of transportation policy has been recognised by many authors in the past, however little has been written within the system dynamics field about transportation applications. Transportation systems are complex, involving many different agents or stakeholders, there are many different feedbacks involved with different time lags between responses of users, developers, operators and policy makers. System dynamics models not only offer a different perspective with a whole system approach to transport planning but also demonstrate to policy makers the importance of these feedbacks and lagged responses. The system dynamics platforms also offer specialised tools which aid in the understanding of the whole underlying system, calibration of models, optimisation of policies and ease of use through flight simulators.

Scheduled for the second half of 2010, this *SDR* Special Issue will emphasise SD applications in the transportation area that adhere to the *Aims and Scope\** of the journal.

<b>Objectives</b>	<b>Suggested topics</b>
<ul style="list-style-type: none"><li>· Demonstrate the value of SD in transportation analysis</li><li>· Demonstrate the policy implications of using SD models</li><li>· Enable cross-fertilisation between SD and Transportation research</li></ul>	<ul style="list-style-type: none"><li>· Model structure and calibration</li><li>· Policy optimisation and implications including lifestyle and behavioural responses to transport analysis</li><li>· Design of SD and Causal Loop Models (CLD) models</li><li>· Flight simulator applications used for teaching/policy making purposes</li></ul>
<b>Timetable</b> <ol style="list-style-type: none"><li>1. Two-page extended abstract required by <b>Mar 31st 2009</b>. Send directly to : <a href="mailto:S.P.Shepherd@its.leeds.ac.uk">S.P.Shepherd@its.leeds.ac.uk</a></li><li>2. The deadline for those invited to submit full papers is <b>January 31<sup>st</sup> 2010</b>.</li><li>3. Peer-review, revision and acceptance decisions : 2010 (Q3)</li></ol> <p><i>Special Note: The deadlines will be strictly enforced.</i></p>	

*\*JOURNAL AIMS AND SCOPE:* The *System Dynamics Review* exists to communicate to a wide audience advances in the application of the perspectives and methods of system dynamics to societal, technical, managerial, and environmental problems. The *Review* publishes: advances in mathematical modelling and computer simulation of dynamic feedback systems; advances in methods of policy

analysis based on information feedback and circular causality; generic structures (dynamic feedback systems that support particular widely applicable behavioural insights); system dynamics contributions to theory building in the social and natural sciences; policy studies and debate emphasizing the role of feedback and circular causality in problem behaviour; developments in strategies for simulation-based consulting and implementation of model-based policy conclusions; contributions to, and applications of, nonlinear dynamics and deterministic chaos; advances in methods and applications of systems thinking approaches relevant to the analysis of dynamic feedback systems; significant contributions to system dynamics teaching.

<sup>a</sup>**Dr. Simon Shepherd** is a Principal Research Fellow, Institute for Transport Studies, University of Leeds, UK. He specialises in transport modelling and policy optimisation.

<sup>b</sup>**Prof. Guenter Emberger**, Technical University of Vienna, Austria. He specialises in system dynamics applications in transport, transport and land use interaction modelling and SD economic modelling. He has been involved with SD teaching activities since the early 1990's.