

Roman Kanala  
1 rue du Belvédère  
1203 Genève  
kanala@iprolink.ch

60 years old  
Swiss citizen

## **Objective**

Research in the domain of energy, economy, environment and development.  
Analysing, formulating, solving problems. Data collecting, validation, processing, modelling, coping with uncertainty.

## **Studies**

1979-85 Nuclear sciences engineer (Czech polytechnics, Prague)  
1987-88 Postgraduate course on energy (Ecole polytechnique fédérale, Lausanne)  
1989-2005 Energy, environment, economy, geomatics, operations research  
(University of Geneva)  
2018 Doctorate of sciences, environment, introduction of consumer behaviour into  
energy systems optimisation models

## **Languages**

English, French - C2  
Czech, German, Hungarian, Russian - B2  
Slovak - mother tongue

## **Professional experience**

2008-present - ISE, Institut des sciences de l'environnement  
sysadmin, responsible for supercomputers for climatic calculus (25% part time)

Feb 2020 - Apr 2020 - Faculty of sciences, Section of Earth Sciences  
sysadmin & user support (50% part time)

Mar 2019 - Jan 2020 - Faculty of sciences, Office of the Dean  
sysadmin & engineer, development of administrative applications (75% part time)

2008-2015 - HEG, Hautes Etudes de Gestion de Genève  
research assistant, master theses supervisor, sociology of energy consumption

2000-2010 - GRID, Global Resource Information Database, UNEP Geneva  
chief systems administrator, IT systems architect (50-75% part time)

1994-2008 - CUEH, University Centre for Human Ecology  
analyst and information system administrator (25-50% part time)

1993-1994 - IBM Geneve, marketing of PowerPC servers and workstations (50%)

1992-1999 - COMIN, Business and management department and HEC Geneve research assistant (part time)

1986-1991 - CUEPE, Centre universitaire d'étude des problèmes de l'énergie assistant

## **Consulting**

2007-2008 - ENVSEC initiative (UNDP, UNEP, OSCE, NATO, UNECE, REC) on the possibility to create energy models for Bielorussia, Ukraine, Moldavia

1996-99, 2003 - swissuni.ch  
conception, programmation, maintenance of the server of the Association  
www.swissuni.ch

1996 - Scénarios Energie 2010, Fragnière E., Haurie A., Kanala R. for  
Département des Travaux Publics et de l'Energie, Genève

1995-96 - Geneva International  
database of international organisations in Geneva on the Web  
A. Clerc, A. Din, R. Kanala, L. Lassonde for  
Département de la Santé et de l'Action sociale, Genève

1992 - Poste suisse  
Influence of the introduction of courrier A, B on income  
G. Antille, F. Carlevaro, A. Haurie, A. de Palma, R. Kanala, J.-P. Vial

## **Teaching**

2008-2015 - HES-SO, HEG Genève: Mathematics, Energy choices modelling at urban level,  
Sociological surveys of energy consumption habits

2000-2003 - Intersource Geneva: HTML, JavaScript, Apache, web programming

1993-1999 - HEC Genève: ad hoc teaching  
operations research, decision analysis, exercises, exams supervision and correction

1997 - CUEH and Formation continue: Internet & environment

1998 - Ad hoc teaching on geomatics course: Decision analysis

**Publications** - <https://archive-ouverte.unige.ch/authors/view/17464>

Giovannini, B., Kanala, R., "Oil Demand Recovery Project - an update",  
CUEPE, Université de Genève, 1986

Aebischer, B., Kanala, R., Pain, D., Giovannini, B.,  
"Perspectives de la demande d'énergie en Suisse, 1985-2025",  
CUEPE, Université de Genève, 1988

Kanala, R., Giovannini, B.,  
"Réduction de l'incertitude dans les données statistiques  
concernant les transports en Suisse", CUEPE, 1990

Fedra K., Greppin H., Haurie A., Hussy C., Hy D., Kanala R., and Degli Agosti R.,  
"GENIE: An Integrated Decision Support System to Assess the  
Environment Policy", Archives de Sciences, Vol. 49, Fasc. 3,  
pp. 247-263, Genève, Décembre 1996.

Bakonyi, M., Courvoisier, O., Degli Agosti, R., Din, A., Dubois, A., Kanala, R., Polla, B. S. et Haurie A.,  
"AIDAIR - Genève: L'interdisciplinarité mise en oeuvre pour la gestion de la qualité de l'air",  
Médecine et Hygiène 1997; 55: 1257-61

A. Din, A. Dubois, E. Fragnière, A. Haurie, R. Kanala, M. Sella,  
"Energy/Environment models and GIS", in: Cahiers du Centre d'écologie  
humaine et des sciences de l'environnement, Genève, No 1, 1998

Fragnière E., Haurie A., Kanala R.,  
"A GIS-Based Regional Energy-Environment Policy Model",  
International Journal of Global Energy Issues, 1999, Vol. 10, Nos. 2-4

E. Fragnière, A. Haurie, R. Kanala, D. Placci,  
"MARKAL-LITE: An Energy /Environment Model to Assess Urban Sustainable Development Policies",  
technical rapport, Logilab, Université de Genève, 2000

E. Fragnière, R. Kanala, D. Lavigne, F. Moresino, A. De Sousa,  
C. Cubizolle, C. Decurnex, G. Nguene,  
"First Modeling Attempts in the Nyon Residential and Commercial Sectors Taking into Account  
Behavioural Uncertainties", 2009,  
in: SSRN: <http://ssrn.com/abstract=1522143>

E. Fragnière, R. Kanala, D. Lavigne, F. Moresino, G. Nguene,  
"Behavioral and Technological Changes Regarding Lighting Consumptions: A MARKAL Case Study",  
Low Carbon Economy, 2010, Vol.1 No.1, 2010, pp. 8-17

G. Nguene, E. Fragnière, R. Kanala, D. Lavigne, F. Moresino,  
"SOCIO-MARKAL: Integrating energy consumption behavioural changes in the technological  
optimisation framework",  
Energy for Sustainable Development, Vol. 15, Issue 1, March 2011, pp. 73-83

Roman Kanala, Nathalie Turin and Emmanuel Fragnière,  
"An energy optimization framework for sustainability analysis: Inclusion of behavioral parameters as a  
virtual technology in energy optimization models",  
in: Zongwei Luo (ed.), Mechanism Design for Sustainability, pp. 107-120, Springer, March 2013, doi  
10.1007/978-94-007-5995-4\_6

Roman Kanala and Emmanuel Fragnière,  
"Mixing Behavioral and Technological Data in Mathematical Programming Framework: the Case of  
Energy Modelling",  
in: Proceedings of the Annual Conference of the German Operations Research Society 2012,  
Leibniz University Hannover, Springer Verlag, September 2013, ISBN 978-3-319-00794-6

Roman Kanala, Emmanuel Fragnière, Francesco Moresino, Marian Dardala,  
"First Insights on Socio-MARKAL Approach Applied to TIMES-Romania Country Model",  
Proceedings of the 12<sup>th</sup> International Conference on Informatics in Economy 2013,

Academy of Economic Sciences, Bucharest 25-28 April 2013

Roman Kanala, Emmanuel Fragnière, Francesco Moresino,  
"Extension of the Social MARKAL Concept to Residential Heating in TIMES Romania Country Model",  
Proceedings of the conference Energy for Sustainability 2013, Sustainable Cities: Designing for  
People and the Planet,  
Coimbra, 8-10 September 2013

Adriana Reveiu, Ion Smeureanu, Roman Kanala, Francesco Moresino,  
"Understanding behaviour, perception and attitudes of domestic lighting consumers in Romania",  
In: Proceedings of the IE 2014 International Conference : 13th International Conference on  
Informatics in Economy, Education, Research & Business Technologies,  
Bucharest, 15-18 May 2014, pp. 345-351. ISSN: 2247 - 1480

Emmanuel Fragnière, Roman Kanala, Metin Caliskan, Francesco Moresino, Ion Smeureanu,  
"Long-term energy and environmental planning models driven by perceived value of energy services:  
mixing techno-economic models with behavioral approaches",  
Proceedings of the 53rd Meeting of the Euro Working Group on Commodities and  
Financial Modelling (EWGCFM) and 2nd International Conference of the Research Centre  
for Energy Management (RCM), Chania, Crete, 22-24 May 2014

Adriana Reveiu, Ion Smeureanu, Marian Dardala, Roman Kanala,  
"Modelling Domestic Lighting Energy Consumption in Romania by Integrating Consumers Behavior"  
Procedia Computer Science 12/2015; 52:812-818, dx.doi.org/10.1016/j.procs.2015.05.137

Emmanuel Fragnière, Roman Kanala, Francesco Moresino, Adriana Reveiu, Ion Smeureanu,  
"Coupling techno-economic energy models with behavioral approaches",  
Operational Research, International Journal, Springer, Volume 16 (2016) pp 1-15,  
dx.doi.org/10.1007/s12351-016-0246-9

## **Presentations**

Alain Haurie, Roman Kanala, HEC Genève, "Linking MARKAL with a GIS",  
International Energy Workshop (IEW), IIASA, Laxenburg, Austria, June 1995

Emmanuel Fragnière, Alain Haurie, Roman Kanala,  
"Energy/Environment Policy Analysis Under Uncertainty for the Canton of Geneva",  
INFORMS Atlanta, 3-6 November 1996

Alain Haurie, Roman Kanala,  
"MARKAL-Lite, A regional model for Geneva canton",  
OR 98, International Conference on Operations Research,  
ETH Zurich, 31 August - 3 September 1998

Cedric Cubizolle, Alexandre De Sousa, Roman Kanala, HEG, Geneve,  
"Social MARKAL: Integrating Behavioural Changes in the Technological Optimization Framework",  
ETSAP Workshop 15-17 December 2008, Sophia Antipolis

Roman Kanala, Haute Ecole de Gestion, Genève & Université de Genève,  
"First Modelling Attempts with Social MARKAL Approach",  
IEA ETSAP Workshop 18-23 January 2010, TERI, New Delhi, India

Emmanuel Fragnière, Denis Lavigne, Roman Kanala, Francesco Moresino, Gustave Nguene,  
Behavioral and technological changes regarding lighting consumption: a MARKAL case study,  
IEA International Energy Workshop, 20-24 June 2010, KTH Stockholm

Emmanuel Fragnière, Roman Kanala,  
Elements of perception regarding consumption of lighting in the Geneva area: a survey research,  
IEA ETSAP Workshop 15-17 November 2010, University College Cork

Gustave Nguene, Emmanuel Fragnière, Roman Kanala, Francesco Moresino, Denis Lavigne,  
Observing and analysing operating modes of staff using IT appliances,  
IEA ETSAP Workshop 15-17 November 2010, University College Cork

Emmanuel Fragnière, Roman Kanala, Nathalie Turin,  
Developing Energy and Environmental Planning Scenarios Based on Ethnomethodology:  
a Case Study Conducted for the Residential Sector in Geneva,  
IEA ETSAP Workshop 5-9 July 2011, Stanford University, San Francisco

Roman Kanala, Emmanuel Fragnière,  
Mixing Behavioral and Technological Data in the Mathematical Programming Framework :  
the Case of Energy and Environmental Planning,  
International Annual Conference of the German Operations Research Society 2012,  
4-9 September 2012, Leibniz Universität Hannover

Roman Kanala, Emmanuel Fragnière, Francesco Moresino, Marian Dardala,  
First Insights on Socio-MARKAL approach applied on TIMES-Romania country model,  
The 12th International Conference on Informatics in Economy, 25-28 April 2013, Bucharest, Romania

Roman Kanala, Emmanuel Fragnière, Francesco Moresino, Ion Smeureanu,  
Denis Lavigne, Nathalie Turin, Jean-Philippe Waaub,  
First Modelling Insights on Social TIMES Romania Country Model,  
IEA ETSAP Workshop 17-21 June 2013, IEA Paris

Roman Kanala, Emmanuel Fragnière, Francesco Moresino,  
Extension of the Social MARKAL concept to Residential Heating in TIMES Romania Country Model,  
Energy for Sustainability 2013, 8-10 September 2013, Coimbra, Portugal

Emmanuel Fragnière, Roman Kanala, Francesco Moresino, Metin Caliskan, Ion Smeureanu,  
Long term energy and environmental planning models driven by perceived value of energy services:  
mixing techno-economic models with behavioral approaches,  
2nd International Conference of the Research Centre for Energy Management, Chania, Crete, 22-24  
May 2014

Roman Kanala, Metin Caliskan, Adriana Dardala, Marian Dardala, Emmanuel Fragnière,  
Titus Felix Furtuna, Francesco Moresino, Ion Smeureanu, Emilia Titan,  
Assessing demand-side behaviour in long-term energy modelling: The case of Romanian Social  
MARKAL,  
International BE4 Workshop, UCL London, 20-21 April 2015

Titus Felix Furtuna, Marian Dardala, Roman Kanala,  
The relationship between environmental and energy indicators, the case study of Europe,  
14th International Conference on Informatics in Economy, ASE Bucharest, 30 April 2015

Adriana Reveiu, Ion Smeureanu, Marian Dardala, Roman Kanala,  
Modelling Domestic Lighting Energy Consumption in Romania by Integrating Customer Behaviour,  
5th International Conference on Sustainable Energy Information Technology,  
SEIT, London, 2-5 June 2015

## **Other publications**

50+ articles on the Web site rts.ch - <http://duckduckgo.com/?q=roman+kanala+site%3A.rts.ch>  
(in French)

130+ articles on the eTrend weekly for economy and finance - <http://www.etrend.sk>  
(in Slovak)

reviewer for Elsevier (Applied Energy)