

# Yael Salzer Ph.D. Eng.

## Human Factors and Decision Making in Agriculture Lab

Department of Growing, Production and Environmental Engineering  
Institute of Agricultural Engineering  
Agricultural Research Organization (A.R.O), Volcani Center  
Derech-Hmakabim 68, Rishon-Le'Zion 7528809 ISRAEL

Office: +972-3-968-3009  
E-mail: salzer@agri.gov.il

## ACADEMIC EMPLOYMENT

2017-today	<b>Tenure-Track Research Scientist – Volcani Center</b> Head of Human Factors and Decision Making in Agriculture Lab Department of Growing, Production and Environmental Engineering, Institute of Agricultural Engineering, Agricultural Research Organization (ARO)	Israel
2015-2017	<b>Postdoctoral Fellow - University of Amsterdam</b> Department of Psychology Integrative Model-based Cognitive Neuroscience Research Unit Advisor: Prof. Birte Forstmann	The Netherlands
2014-2015	<b>Postdoctoral Fellow - Ben-Gurion University of the Negev</b> Department of Psychology, Cognitive Neuropsychology Lab Advisor: Prof. Avishai Henik	Israel

## EDUCATION

2008-2013	<b>Ph.D. – Ben-Gurion University of the Negev</b> Department of Industrial Engineering and Management, Human Factors Lab Department of Psychology, Cognitive Neuropsychology Lab Title: Cognitive Control and the Tactile Simon Task: The Unique Role of Tactile Spatial Information Advisors: Prof. Tal Oron-Gilad and Prof. Avishai Henik	Israel
2005-2008	<b>M.Sc. – Ben-Gurion University of the Negev</b> Industrial Engineering and Management, Human Factors Lab Title: Development and Evaluation of a Thermoelectric Tactile Display Based on the Thermal Grill Illusion Advisor: Prof. Tal Oron-Gilad	Israel
1998-2002	<b>B.Sc. Electronic Engineering – Tel-Aviv University</b> Faculty of Engineering, Department of Electronic Engineering, Tel-Aviv University	Israel
1992-1995	<b>Galilee High School - Kefar-Sava</b> Physics and Biology	Israel

## RESEARCH GRANTS

2019-2020 The Office of the Chief Scientist, Ministry of Agriculture and Rural Development  
Research proposal: Research and development of physiological sensor system for assessing pain in dairy cows (PI: Yael Salzer, CI: Dr. Hen Honing, Dr. Ariel Shabtay, Dr. Barak Fishbain). 470,000 NIS

## SCHOLARSHIPS AND AWARDS

2017 Itzhak Shamir Postdoctoral Fellowship by Ministry of Science, Technology and Space (waived)  
2017 Postdoctoral Fellowship by University of Haifa (waived)  
2015-2016 Postdoctoral Fellowship Program in Social Sciences Founded by the **Israel Foundations Trustees (IFT) - Israel Science Foundation (ISF) No 93/15**  
2009-2013 **Negev Scholarship for Excellence by Ben-Gurion University**, for doctoral students.  
2012 Departmental outstanding **lecturer award**.  
2011 **Ministry of Science and Technology Scholarship**; program of Promotion of Women in Science and Technology.  
2007-2011 Scholarship of the **Combined Technologies for Excellence by the Council of Higher Education of Israel**, for masters and doctoral students.  
2010 **Israel Foundations Trustees** – Competition for Research Grants for Doctoral Students in the Social Sciences No29 (2009/2010).  
2007 Departmental outstanding **teaching assistant award**.

## ACADEMIA

### University Teaching Experience

Ben-Gurion University of the Negev, Israel

2008-2015 **Adjunct Lecturer**  
2015 Physiology and Human Factors of Safety for MA  
2013-2015 Introduction to Human Factors Engineering  
2009-2015 Information Technologies – Infrastructure  
2009 Automation  
2006-2010 **Teaching Assistant**  
2010 Neuropsychology of Attention  
2006-2008 Automation  
2006-2008 Automation and Medical Devices

### Academic Instructorship Experience

2008-2015 Department of Industrial Engineering and Management, Human Factors Lab. **Guiding undergraduate students** in their final projects.  
Sahar Karat, Limor Rohald, Shlomi Dagan, Tamir Kabun, Adi Oren, Assaf Bar-Gil, Amichai Cohen, Or Ben-David, Shira Yossef, Nuphar Katzman, Ortal Cohen, Shiri Libman, Yossef Falkovich.  
  
Department of Psychology, Cognitive Neuropsychology Lab. **Guiding undergraduate psychology students** undergoing full year training as instructed research assistants.  
Tamar Ayalon, Galia Paz, Inbar Mazouz, Ittay Mannheim, Moran Hayut, Tomer Bruckner, Tom Fruchtman.

## Journal Reviews

Cortex; Human Factors and Ergonomics Society (HFES) International Annual Meeting 2014; IEEE Transactions on Haptics; Journal of Experimental Psychology: Human Perception and Performance; Brain Research Methods; Psychonomic, Bulletin & Review; Psychological Research; IEEE Transactions on Automation Science and Engineering; Frontiers Psychology; Transactions on Haptics

## Technical skills

E-prime, STATISTICA, MATLAB, LabView, Cadence, Brain Voyager, R, Python, FSL

## NON-ACADEMIC EXPERIENCE

### Employment

1998-2005	2000-2005	<b>Electronics Engineer - IBM</b> Research and Development Laboratories, Haifa, Tel Aviv
	1999-2000	<b>Software QA - Nice Inc.</b> , Ra'anana
	1998-1999	Tutor. Alumim Boarding School, Kefar-Sava

### Military Service

1996-1997	1997	Air cadet, Flight Academy, Air Force
	1996-1997	Intelligence

**Languages** Hebrew & English full proficiency

## PUBLICATIONS, PEER-REVIEWED

- 2017** Salzer, Y., de Hollander, G., & Forstmann, B. U., (Available online 24 February 2017) Sensory neural pathways revisited to unravel the temporal dynamics of the Simon effect: A model-based cognitive neuroscience approach. *Neuroscience & Biobehavioral Reviews*. <http://dx.doi.org/10.1016/j.neubiorev.2017.02.023>
- Fruchtman, T., Salzer, Y., Henik, A., & Cohen, N., (2017) The interaction between emotion and executive control - comparison between visual, auditory and tactile modalities, *Quarterly Journal of Experimental Psychology*, 70(8), 1661-1674. [DOI: 10.1080/17470218.2016.1199717](https://doi.org/10.1080/17470218.2016.1199717)
- 2015** Salzer, Y., & Oron-Gilad, T. (2015) Evaluation of an "on-thigh" vibrotactile collision avoidance alerting component in a simulated flight mission. *IEEE Transactions on Human-Machine Systems*, 45(2), 251-255. [DOI:10.1109/THMS.2014.2364721](https://doi.org/10.1109/THMS.2014.2364721).
- Salzer, Y., Oron-Gilad, T., & Henik, A. (2015) Evaluation of the Attention Network Test using vibrotactile stimulations. *Behavior Research Methods*, 47, 395-408. [DOI:10.3758/s13428-014-0479-6](https://doi.org/10.3758/s13428-014-0479-6)
- Freud, E., Aisenberg, D., Salzer, Y., Henik, A. & Ganel, T. (2015). Simon in action: The effect of spatial congruency on grasping trajectories. *Psychological Research*, 79(1), 134-142. [DOI: 10.1007/s00426-013-0533-5](https://doi.org/10.1007/s00426-013-0533-5)
- 2014** Salzer, Y., Aisenberg, D., Oron-Gilad, T., & Henik, A. (2014). In touch with the Simon effect. *Experimental Psychology*, 61(3), 165-179. [DOI:10.1027/1618-3169/a000236](https://doi.org/10.1027/1618-3169/a000236)
- 2011** Salzer, Y., Oron-Gilad, T., Ronen, A., & Parmet, Y. (2011). Vibrotactile "on-thigh" alerting system in the cockpit. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 53(2), 118–131. [DOI: 10.1177/0018720811403139](https://doi.org/10.1177/0018720811403139)

In preparation  
/Under review

Salzer, Y. & Friedman, J., Simon effect decays slower for somatosensory than visual task: evidence from reaching trajectories (under review)

Salzer, Y., & Gotler, A., A conscious dissociation between proactive and reactive control: a somatosensory study (in preparation)

Salzer, Y., de Hollander, G., van Maanen, L., Forstmann, B. U., Decoding early response capture in conflict tasks (*Neuropsychologia*, revised and resubmitted)

## CONFERENCES AND PROCEEDINGS

**2017** Salzer, Y., de Hollander, G., & Forstmann, B. U., Tracing the Dynamics of the Simon Effect: A Model-Based Cognitive Neuroscience Approach, *ISCOP*, Akko, Israel, February 21-23, 2017

**2016** Salzer, Y., de Hollander, G., van Maanen, L., Salti, M., & Forstmann, B. U., Comparing visual and tactile Simon effects: a model-based analysis, Annual Meeting of the Society of Neuroscience, November 12-16, San Diego, CA, 2016

de Hollander, G., Salzer, Y., Forstmann, B., van Maanen, L., A linear ballistic accumulator model with a fast-guess process accounts for empirical findings in the Simon task, 49th Annual Meeting of the Society of Mathematical Psychology, 4-7 August, New Brunswick, New Jersey, USA, 2016

Friedman, J. & Salzer, Y., Elucidating the differences between the tactile and visual Simon effect using arm movements, *ISCOP*, Akko, Israel, 16-18 February, 2016.

**2015** Salzer, Y., Gotler, A., & Henik, A., Consciousness is mandatory for proactive control, but not reactive control: A somatosensory study, *NVP*, Egmond aan Zee, The Netherlands, 17-19 December, 2015.

Katzman, N., Oron-Gilad, T. & Salzer, Y., Tactile interfaces for dismounted soldiers: User-perceptions on content, context and loci. *Human Factors and Ergonomic Society Conference*, Los Angeles, 26-30 October, 2015.

**2014** Salzer, Y., Theoretical and applied aspects of attention to the tactile modality. *German-Israeli Minerva School on Cognitive Robotics*, Berlin, Germany, 24-27 February, 2014.

**2013** Fruchtmann, T., Salzer, Y., Cohen, N., & Henik, A., The links between emotion and executive control: a comparison between visual and tactile modalities. *Emotional, All Too Emotional – Neuroscientific Views on Affect and its Regulation in Humans*, Tel-Aviv, 19 March, 2013.

**2012** Salzer, Y. & Oron-Gilad, T., A comparison of "on-thigh" vibrotactile, combined visual-vibrotactile, and visual-only alerting systems for the cockpit under visually demanding conditions. *Human Factors and Ergonomic Society Conference*, Boston, 22-26 October, 2012.

Salzer, Y., & Oron-Gilad, T., It's burning cold! Visual and tactile events become thermal concepts, *European Society of Cognitive and Affective Neuroscience (ESCAN)*, Marseille, France, 9-12 May, 2012.

**2011** Salzer, Y., Oron-Gilad, T., & Henik, A., Do different modalities alert tactile Simon differently? *20th Israeli Society for Neuroscience (ISFN) Annual Meeting*, Eilat, 11-13 December, 2011.

Aisenberg, D., Salzer, Y., Gotler, A., Mannheim, I., & Henik, A., Cross modal processing

and cognitive control. *The 27th Meeting of the International Society for Psychophysics*, Herzliya, Israel, October 24-27, 2011.

Yosef, S., Salzer, Y., Oron-Gilad, T., Vibrotactile 'on thigh' alerting system in the cockpit *16th International Symposium on Aviation Psychology*, Dayton, Ohio, USA, 2-5 May, 2011.

**2010**

Salzer, Y., Aisenberg, D., Oron-Gilad, T., & Henik, A., In touch with the Simon Effect. *Cognitive Science Association for Interdisciplinary Learning (CSAIL)*, Hood River, Oregon, USA, 24-28 July, 2010.

Salzer, Y., Oron-Gilad, T., & Ronen, A., Vibrotactor-belt on the thigh – Directions in the vertical plane. *EuroHaptics*, Amsterdam, Holland, 7-10 July, 2010. (poster)

Salzer, Y., Aisenberg, D., Oron-Gilad, T., & Henik, A., In touch with the Simon Effect. *Selection and Control Mechanisms in Perception and Action*, Jerusalem, Israel, 12-16 April, 2010.

**2008**

Oron-Gilad, T., Salzer, Y., & Ronen, A., Thermoelectric tactile display based on the thermal grill illusion, *EuroHaptics*, Madrid, Spain, 10-13 October, 2008.

**2007**

Salzer, Y., Oron-Gilad, T., & Ronen A., Thermoelectric tactile display based on the thermal grill illusion, *European Conference on Cognitive Ergonomics*, London, UK, August 28-31, 2007.