



## סמינריון

הנך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות שתתקיים ביום הי 13.05.21

: באייר, תשפייא), בשעה 13:45 באמצעות הזום

https://technion.zoom.us/j/94095413060

מרצה: מאור ברקסמאיר

מנחה: פרופי לאוניד מירקין

:על הנושא

## **Control with Intermittent Communication**

The seminar will be given in English

## תקציר ההרצאה:

Analysis and design of sampled-data systems with intermittent feedback is motivated by the contemporary trend to distribute information processing in many networked control applications. In this seminar I will present my research on the stabilization, optimization and implementation of discrete (or discretized) linear systems with intermittent, unknown a priori information exchange between sensor- and actuator-side parts of the controller. The talk will be focused on the following results:

- stabilization in intermittent systems with constrained analog-to-digital and digital-toanalog conversion mechanisms
- optimal  $H_2$  and  $H_{\infty}$  intermittent controllers
- implementation architecture over unreliable networks
- effects of the variability of the sampling rate on the attainable optimal cost

The derived results are nonconservative, computationally simple, digitally implementable and transparent. Furthermore, these results offer a valuable insight into control over communication networks.

בברכה.

מרכז הסמינרים מרכז הסמינרים