

## Session Program

25–26 Jun 2026



# International Conference on Secure Systems Design and Technology Development (SysTechDev 2026)

## *Laser Technology*

"Vasil Levski" National Military University  
Veliko Tarnovo, Bulgaria

# Thursday 25 June

12:05

## Laser Technology: LT I

Session | Location: Room 1109 | Conveners: Imants Adijāns, Lyubomir Lazov

12:05–12:20

### Comparative Analysis of Numerical and Experimental Results in Laser Hardening of 42CrMo4 Steel

Speaker

Prof. Lyubomir Lazov

12:20–12:35

### OPTIMIZATION-BASED FIRST-ORDER SYNTHESIS OF INFRARED TRIPLET SYSTEMS FOR LWIR IMAGING

Speaker

Dimcho Pulov

12:35–12:50

### STATE CONTROLLER SYNTHESIS FOR AN ELECTROHYDRAULIC POWER TRANSMISSION SYSTEM

Speaker

Hristo Hristov

12:50–13:05

### AN EXPERIMENTAL STUDY OF THE FREQUENCY RESPONSE OF AN ELECTROPNEUMATIC POSITIONING SYSTEM WITH A RODLESS CYLINDER FOUR HIGH SPEED PNEUMATIC VALVES AND PWM CONTROL

Speaker

Hristo Hristov

13:05–13:20

### MODELING AND SIMULATING DYNAMIC PROCESSES IN AN ELECTROPNEUMATIC POSITIONING SYSTEM WITH PWM CONTROL AT DIFFERENT LENGTHS OF THE PNEUMATIC LINES

Speaker

Georgi Iliev

13:20–13:35

### An Adaptive Kalman Filter for Video-Based Tracking with Dynamic Adaptation of Covariance Matrices

Speaker

Dimitar Dichev

13:35–13:50

### Scratch-Test Response of Color Laser-Marked AISI 304 Stainless Steel for a $7 \times 7$ Laser-Parameter Matrix

Speaker

Imants Adijāns

13:50

14:25

## Laser Technology: LT II

Session | Location: Room 1109 | Conveners: Imants Adijāns, Lyubomir Lazov

14:25–14:40

### METHOD FOR SYNTHESIS OF STATE CONTROLLER WITH OBSERVER FOR AN ELECTROHYDRAULIC POWER TRANSMISSION SYSTEM

Speaker

Hristo Hristov

14:40–14:55

### INFLUENCE OF PASS CONFIGURATION, RASTER STEP, AND SCANNING SPEED ON LASER COLOR MARKING OF AISI 304 STEEL

Speaker

Nikolay Angelov

14:55–15:10

### Bayesian Method for Recursive Combination of Measurement and Prior Information for Accuracy Improvement in Video-Based Measurements

Speaker

Dimitar Dichev

15:10–15:25

### Development of a Method for Calibration of a Semiconductor Temperature Measurement Sensors

Speaker

Tsanko Karadzhov

15:25