

Schweizerische Gesellschaft für Automatik  
Association Suisse pour l'Automatique  
Swiss Society for Automatic Control

[www.sga-asspa.ch](http://www.sga-asspa.ch)

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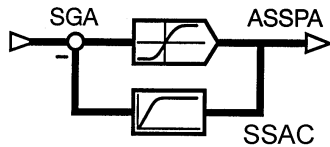
# Invitation to the annual SGA-ASSPA Meeting and Awards Ceremony

Guests are welcome!

<b>Date</b>	<b>Thursday, January 29<sup>th</sup>, 2026, starting at 15:00</b>
<b>Location</b>	HEIG-VD, Haute Ecole d'Ingénierie et de Gestion du Canton de Vaud, Route de Cheseaux 1 (orange building), 1401 Yverdon-les-Bains. Room E03 (ground floor).
<b>Directions</b>	see below
<b>Registration</b>	Please register before January 22, 2026, via email to <a href="mailto:sekretariat@sga-asspa.ch">sekretariat@sga-asspa.ch</a>

## PROGRAM

<b>15:00</b>	<b>Welcome</b> Marc Kunze, Dean department TIN (industrial technologies) Daniel Garcia, new Professor in Automatic Control at HEIG-VD Markus Kottmann, President SGA-ASSPA  <b>Talks of the Awardees</b>
<b>15:15</b>	<b>Parameteridentifikation hydraulischer Linearachsen für den Aufbau eines Gesamtanlagenmodells zur Modellierung des Energieverbrauchs von Biegemaschinen</b>  Raphael Furrer, FHNW Brugg (Bachelor 1, slides in english, talk in german)  Die Firma Haeusler AG in Duggingen ist laufend daran die Rundbiegemaschinen in ihrem Produktportfolio energieeffizienter zu gestalten. In einem übergeordneten Projekt soll ein Gesamtanlagenmodell zur Ausarbeitung und Erprobung von effizienzsteigernden Massnahmen erstellt werden. In dieser Projektarbeit liegt der Fokus auf der Parameteridentifikation für das Modell einer Linearachse. Um diese Parameter zu bestimmen, sollen automatisierbare Verfahren zur Parameteridentifikation von ventilgesteuerten hydraulischen Differenzialzylindern entwickelt werden.
<b>15:40</b>	<b>Award Ceremony Bachelor 1</b>



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**15:45                      Trajectory Generation and Control of a maritime USV Drone**

Matthias Nicoloso, HES-SO (Bachelor 2)

Autonomous vehicles are playing an increasingly important role in modern engineering, whether they are land-based, aerial, or maritime. The final goal of this work is the development of a solar-powered maritime drone designed for environmental analysis in lakes or water dams. As the final version is still under development, a scaled-down model has been built to quickly test new features in real conditions. This talk focuses on trajectory control for this maritime drone. A planning and tracking algorithm has been developed, enabling the drone to efficiently cover any area defined by the user on a map. The proper functioning of the drone was validated under real conditions in Lake Neuchâtel.

**16:10                      Award Ceremony Bachelor 2**

**16:15                      Multi-Agent Multi-Trajectory  
MPC - An Application to Autonomous Racing**

Sabrina Bodmer, ETH Zurich (Master)

As robotic devices like autonomous vehicles become more common, their coordination has become crucial, spurring interest in multi-agent systems and their control. While centralized optimization approaches using model predictive control (MPC) offer direct solutions, they face challenges with scalability and communication, leading to the adoption of distributed control methods that support plug-and-play operations, allowing agents to join or leave the network dynamically without relying on a centralized platform.

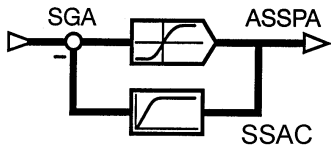
In this work, we present a distributed multi-agent algorithm that supports plug-and-play operations without explicit requests. The method effectively avoids collisions even in high-speed, dynamic scenarios with up to four agents racing in opposite directions in both simulated and various real-world experiments.

**16:40                      Award Ceremony Master**

**16:45                      Visit of the labs of the Institute for Industrial Automation (iAi)**

**17:15                      Apéro and Networking**

**ca. 18:00                End of the Event**



There are two bus connections from the train station in Yverdon to HEIG-VD, site "Cheseaux". The bus stop is called "HEIG-VD".

- **Line 601:** Buses every 10 minutes during peak hours (from 7:00 to 9:30, from 11:30 to 13:30, and from 15:00 to 19:00) and every 20 minutes during off-peak hours.
- **Line 603:** Buses every 20 minutes from 5:30 to 18:30, then every 30 minutes. Direct connection only in the direction **Train Station** → **HEIG-VD**.

Trains from Zurich :

**Zürich HB → Yverdon-les-Bains, HEIG-VD**  
 Fr. 19.12.2025, 2 h 10 min

12:04 ● ———— ● 14:11 步 3'

2. Klasse ab CHF 34.50	1. Klasse ab CHF 43.60
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Zürich HB Karte anzeigen >

12:04 ● **Zürich HB** Gleis 32  
 1. 步 步 2. 步 步  
 Richtung Lausanne  
 IC 5  
 TT R .il

13:58 Yverdon-les-Bains Gleis 2

3' 步 Fussweg Karte anzeigen >

14:07 ● **Yverdon-les-Bains, gare** Kante B  
 B 603  
 Richtung Yverdon-les-Bains, Bellevue  
 NF

14:11 ● **Yverdon-les-Bains, HEIG-VD** Kante A

3' 步 Fussweg 93 m Karte anzeigen >

Yverdon-les-Bains, ChillOut, Route de Cheseaux

**Zürich HB → Yverdon-les-Bains, HEIG-VD**  
 Fr. 19.12.2025, 2 h 12 min

12:29 ● ———— ● 14:38 步 3'

2. Klasse ab CHF 25.20	1. Klasse ab CHF 41.60
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Zürich HB Karte anzeigen >

12:29 ● **Zürich HB** Gleis 17  
 1. 步 步 2. 步 步  
 IR 55  
 Richtung Biel/Bienne

13:43 Biel/Bienne Gleis 4

Umsteigen Karte anzeigen >

13:48 ● **Biel/Bienne** Gleis 5  
 1. 步 步 2. 步 步  
 IC 51  
 Richtung Lausanne  
 TT R .il

14:28 Yverdon-les-Bains Gleis 2

3' 步 Fussweg Karte anzeigen >

14:34 ● **Yverdon-les-Bains, gare** Kante B  
 B 601  
 Richtung Cheseaux-N., gymnase d'Yverdon  
 NF

14:38 ● **Yverdon-les-Bains, HEIG-VD** Kante A

3' 步 Fussweg 93 m Karte anzeigen >

Yverdon-les-Bains, ChillOut, Route de Cheseaux

