

<Invitation>

Friday 1 March 2019

# Coding in STEM Education

Presentation and Workshops



SCIENCE  ON STAGE  
GERMANY

THE EUROPEAN NETWORK FOR SCIENCE TEACHERS

Friday 1 March 2019 · 11:00

## Location

**SAP Österreich GmbH**

Lassallestraße 7B · 1021 Vienna

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**What does a robot have to do with environmental protection? How do you remote control a model boat using a smartphone? IT is everywhere, and coding offers many possibilities for exciting and relevant lessons!**

Organized by Science on Stage Germany and with support from SAP SE, an international teacher team developed concrete examples and practical advice about how to acquire coding skills using microcontrollers such as Arduino and Raspberry Pi.

**We kindly invite you to the presentation of the results!**

## Contact and organizer

**Science on Stage Deutschland e.V.** · Am Borsigturm 15 · 13507 Berlin

Tel.: +49 30 400067-40 · [www.science-on-stage.de](http://www.science-on-stage.de)

Please register by 25 February 2019 via [info@science-on-stage.de](mailto:info@science-on-stage.de)



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## Agenda

### <11:00> Welcome and Greetings

*Dr Christian Arbeiter*

HR Director, SAP Österreich GmbH

*Heidrun Strohmeier*

Chief Digital Officer, Director IT, Digitalisation and Media,  
Ministry of Education, Science and Research

### <11:15> The Science on Stage Network:

#### What teachers can learn from each other

*Stefanie Schlunk*

Chair, Science on Stage Europe

### <11:30> Investment in the Future:

#### SAP's commitment to education

*Gabriele Hartmann*

Head of Corporate Social Responsibility MEE, SAP SE

### <11:40> Coding in STEM Education:

#### Publication and making of

*Dr Jörg Gutschank*

Chair, Science on Stage Germany

Questions and answers with participants, coordinators and  
organizers // Students' presentation

### <12:15> Code League: European coding competition

### <12:30> Get together

### <14:00> Programming workshops for teachers

[Further information: see next page]

The event will be in English.

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Friday 1 March 2019 · 14:00 to 16:00

SAP Österreich GmbH · Lassallestraße 7B · 1021 Vienna

# Workshops: Coding in STEM Education

## Workshop 1

### CoALA - Code a Little Animal

*Mirek Hančl, Germany*

Subjects: science, biology, science in primary school, computer science

In this workshop you will learn how to create an interactive “pet” by using a microcontroller, cardboard and tape. The single-board controller is programmed with a graphical programming language to capture sensor readings (i.e. moisture, multi-touch, NFC) and to react to them with corresponding image and sound signals. This way the needs of a real pet (food, water, exercise etc.) are simulated using external sensors and algorithms. The pet simulator is based on Calliope mini and is transferable to the BBC micro:bit. The project is appropriate both for primary and secondary school students.

The workshop will be in German.

## Workshop 2

### Coding H<sub>2</sub>O

*Beatriz Padin, Spain*

Subjects: chemistry, physics, maths, computer science

In this workshop you will learn how to test a solar still by using sensors with an Arduino microcontroller to measure its efficiency. You will try out low-cost sensors for temperature, humidity and infrared radiation. The basic skills acquired in the workshop will enable you to program other sensors to measure a wide range of physical quantities.

The workshop will be in English.

<Registration> The number of participants is limited. Please register for one of the two workshops by 25 February 2019 via [info@science-on-stage.de](mailto:info@science-on-stage.de). Please also add your name, school and subjects to the registration. The participation in the workshops is free of charge.