

# WORKING TOGETHER: CLASS ACTIVITIES AS CROSS-CULTURAL BRIDGES IN SOFTWARE ENGINEERING TEACHING

**Simona Vasilache**

[simona@cs.tsukuba.ac.jp](mailto:simona@cs.tsukuba.ac.jp)



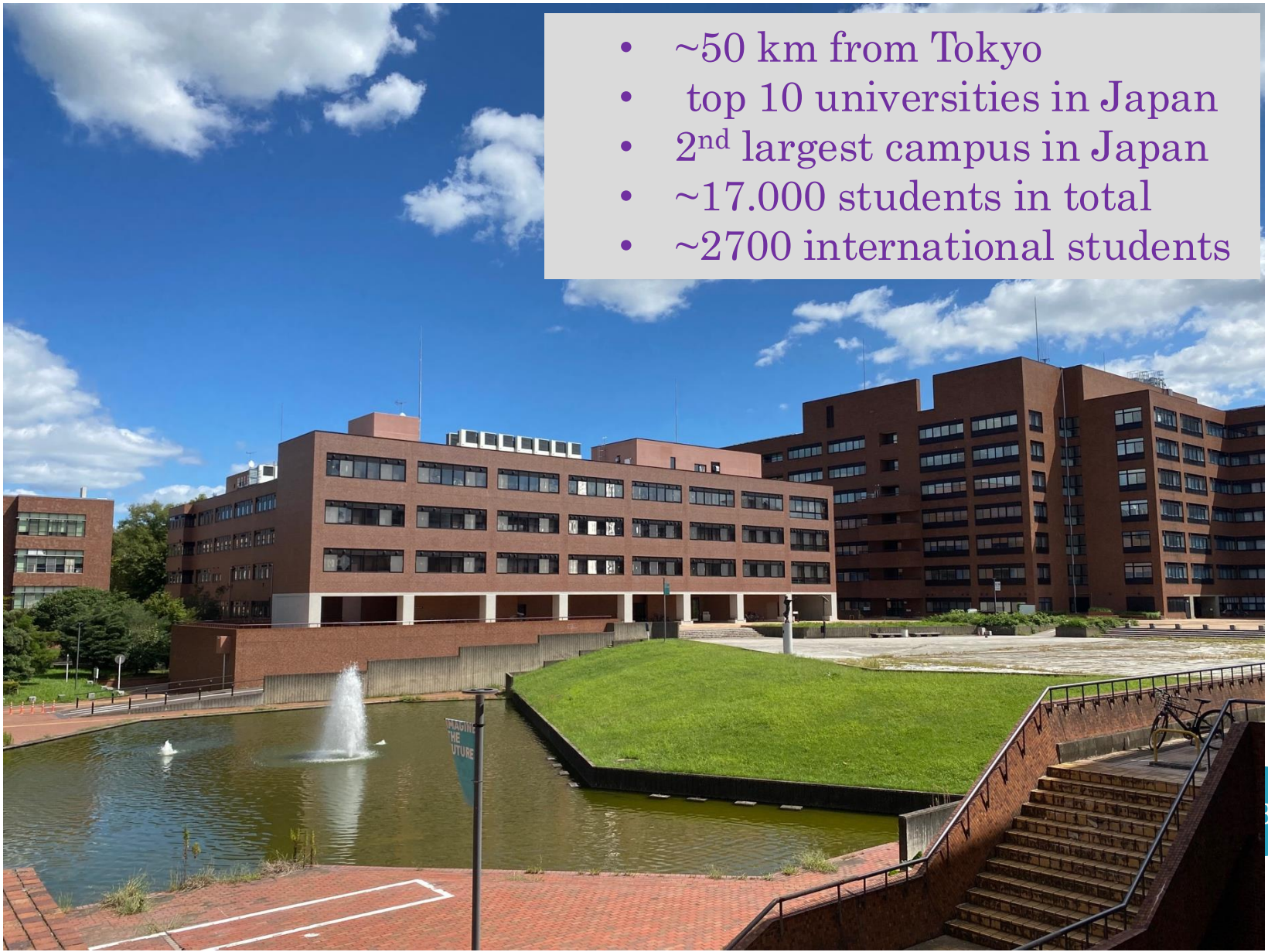
**筑波大学**  
*University of Tsukuba*

# SIMONA VASILACHE

- 14 years teaching at the University of Tsukuba, Japan
- English programs - multicultural classrooms
  
- Major interests
  - Human-computer interaction
  - Global software engineering
  - Multicultural instruction, intercultural communication

# UNIVERSITY OF TSUKUBA

- ~50 km from Tokyo
- top 10 universities in Japan
- 2<sup>nd</sup> largest campus in Japan
- ~17.000 students in total
- ~2700 international students



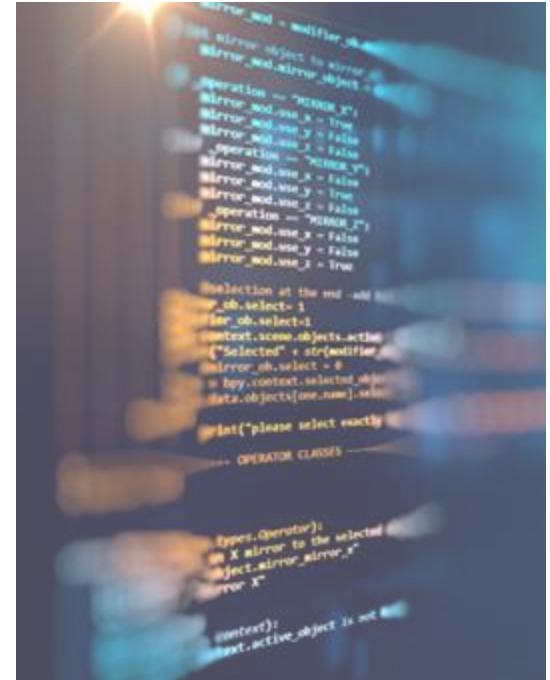
# SOFTWARE ENGINEERING EDUCATION

## ○ Theory

- Computer science basics
- Theories, concepts

## ○ Practice

- Development process practicalities
- Implementation methodologies
- **Teamwork**



# BACKGROUND

## ○ Active and Collaborative Learning

- Actively involving the learners in the teaching process
- Group work, discussions, problem solving, role playing etc.

## ○ Multicultural environments

- Language barrier
- Cultural differences

## ○ Engaging students in active learning is challenging

## ○ Our work: example of introductory software engineering course

- Empirical observations, questionnaires
- Students' feedback

# COURSE DESCRIPTION

- *“Principles of Software Engineering”*
- University of Tsukuba, Japan
- Master’s course in computer science
- Multicultural group; in 2024 (total of 105):
  - 43 Japanese students
  - 62 international students (15 countries)
- Topics:
  - *Software development process (requirements analysis, testing etc.)*
  - *Agile development*
  - *User interface design*
  - *Project planning and project management etc.*



# CLASS FLOW

- Start: “warm-up” discussion; new-topic brief discussion
- **New concepts (“lecture”)**  
&
- **Class activities**
  - Group tasks (brainstorming, production, reporting)



# CLASS ACTIVITIES AND DISCUSSIONS

- Various group settings attempted
- Based on **seating**
  - Students sit wherever they want at the beginning of class
  - Often, they choose the same seats every time
- Based on **common language**
  - Japanese or English (tried Chinese, too)





# MULTICULTURAL GROUPS - STUDENTS' FEEDBACK

## ❑ International students

- Overwhelmingly positive
- Language should not matter
  - “Unfair” by definition
  - Most international students speak English (well)

## ❑ Japanese students

- Mixed reactions
- Some prefer speaking Japanese only
  - Consequence: interacting with mostly Japanese colleagues
    - Few exceptions of international students fluent in Japanese
- Many would like to interact with international students, but they “*cannot speak English well enough*”

# STUDENTS' COMMENTS – POST-ACTIVITY

(INDIVIDUAL, FOR EACH ACTIVITY)

*“What I liked most is that I got in contact with some new people.”*

*“I prefer to talk with students from different cultural backgrounds”*

*“The best part is everyone working together collaboratively.”*

*” I joined the English speaker group then, but I can't speak as fast as foreigners and they are so active, so I cannot act actively. It was more difficult than I expected. But, it doesn't mean I should do activity in same language group.”*

*“I think a unified language would ensure psychological safety.”*  
*(translated from Japanese)*

# STUDENTS' COMMENTS – END OF COURSE (ANONYMOUS, IN SURVEY)

Most enjoyed part: *“group activity”*

*“The in-class activities felt super fresh -- they were always something to look forward to every week”*

*“It was a great class. Some people have different culture so I learn more from the other point of view”*

*” [...] while I find it very easy to communicate with other international students, regardless of their background and language skills, I still have a hard time communicating with and relating to Japanese students, even knowing the language a little.”*

# CONCLUSIONS

- **Software engineering** teaching: must include practical knowledge
- **Class activities:** practical and enjoyable way of learning
- **Multicultural groups:** challenging, but rewarding
- Students: willing to participate, but struggling to overcome **language** and **cultural** barriers
- **Challenging** students is helpful!

