

Falling Walls Lab Jakarta (Indonesia) 2019

Mr James Zulfan

“Breaking the Wall of Dam Construction”



**FALLING
WALLS
LAB**

You delivered the winning performance at the Falling Walls Lab Jakarta? Why did you choose to compete in the Falling Walls Jakarta competition?



I choose to compete in FWL Jakarta because I saw an opportunity to challenge myself and to give some exposure to my current project. Also, in my opinion the Falling Walls lab competition is a very interesting competition because it does not limit the participants to a single topic specific topic. Therefore, I found it fascinating to listen to range of innovative ideas from different backgrounds and different research fields in the same

room. And, of course, the prizes are very attractive. I thought it would be awesome if I can win those prizes, go to Berlin and represent Indonesia at a high-level competition. The EURAXESS Prize to visits labs in Europe was very tempting.

What is your innovative idea, and why should people pay attention to your research project?

My innovative idea is to simplify the dam construction process to save time and money. Using lightweight concrete modules that we have developed; we can build a dam structure faster and cheaper. The design of the spillway is also unique and will allow for water flow and trigger more aeration which generate more oxygen for downstream for the benefit of the river's ecosystem. My research project is unique and useful especially for construction projects in remote areas because it can be done using manpower without heavy equipment. I have already started a prototype in a weir and small dam structure, and I hope in the future it can be implemented on a much larger scale. Construction will be more effective and efficient; in consequences we can use the remaining time and budget that we save for other things.

You will be representing Indonesia in the global Falling Walls Lab Finale in Berlin this November? How are you preparing for the event?

I have already begun work on improving my presentation skills and I have been consulting with colleagues. I have also sought advice from last year's winner of Falling Walls Jakarta I Made Arsana whose experience is invaluable.

You are also the winner of the EURAXESS Prize 2019 to visit a research lab anywhere in the EU. What are your plans?

Yes, this is the prize that I've been waiting for! I'm planning to meet with the best hydraulic labs in Europe including the Hydraulic Laboratory in Dresden (TU Dresden, Germany), the Hydraulic Laboratory in Lausanne (LCH – Laboratory of Hydraulic Constructions - EPFL, Swiss), Hydraulic Laboratory in ETH Zurich (Swiss), and the Hydraulic Laboratory in Delft (TU Delft, The Netherlands). My goal is to learn from the best so that I can learn and improve my skills and knowledge on dam constructions.

Where do you see yourself in 10 years in terms of your research idea and your career?

In 10 years, I hope this innovation can be implemented in rural and remote areas in Indonesia and other countries facing similar challenges. This will accelerate the development of infrastructure in countries where the need is greatest. I hope this innovation can also brighten my career and enlarge my own research networks so that I can provide the best infrastructure solutions not just in Indonesia but globally.

Thanks so much and good luck in Berlin!