## Educational exchanges and joined researches with Prof. Riri

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The first time I met Prof. Riri was back to 2012. By Prof. Takako Hashimoto's introduction, I was invited from Universitas Indonesia (hereafter UI), Information System Development and Services. Then I talked there a public lecture titled "Web Publication of Visual Teaching Materials for Business Mathematics" on 7th September, 2012. Since then, once or twice per year, I have visited UI which were very enjoyable for me. This is because Prof. Riri writes the invitation letters for me. I could have spent my sabbatical holidays in Lambaga Demografi, Faculty of Economics and Business of UI in 2018 to 2019 for a half year. This would not have been enabled without her kind helps. I owe her a lot in my activities in Indonesia.



Fig. 1: From the left, I, Prof. Riri and Prof Hashimoto in Prof. Hashimoto's campus in 2019.

We have written many papers. The paper list reminds me a lot of fond remembrances with Prof. Riri. From them, I shall introduce one selected project.

## Visually Do Shape Analysis!

We developed the teaching materials of the shape analysis as a joint research project result of Japan and Indonesia researchers. They are Prof. Yukari Shirota (Gakushuin Univ., Japan), Prof. Takako Hashimoto (Chiba University of Commerce, Japan), Prof. Riri Fitri Sari (Univ. of Indonesia), and Dr.Tetri Widiyani (Sebelas Maret University, Indonesia). The project was supported by the Computer Centre of Gakushuin Univ. as a 2017 special research project. Using the teaching materials, we did the tutorial lectures in IEEE DSAA (Data Science and Advanced Analysis) 2017. In the teaching material web

(https://www-cc.gakushuin.ac.jp/~20010570/mathABC/SELECTED/ShapeAnalysis/), we used the craniofacial differences of the two ancient humans; they are Homo floresiensis and Homo sapiens. We would like to thank the Director Sukronedi (S.Si, M.A.) and staff members of Sangiran Early Man Site Museum, Indonesia for giving us a permission of an access to the ancient human craniofacial collections. In Indonesia, we can discover various bone fossils of early men, including craniofacial bones, especially in the vicinity of Solo city, Indonesia. First, Prof. Riri introduced us Dr. Tetri and Dr. Tetri visited my laboratory so that we could conduct the analysis. The data of Homo floresiensis was so thrilling for me. I enjoyed so much a discussion with Dr. Tetri. Special thanks to Prof. Riri for introducing Dr. Tetri.

- Yukari Shirota, Riri Fitri Sari, Tetri Widiyani, and Takako Hashimoto: "Visually Do Statistical Shape Analysis!," Data Science and Advanced Analytics (DSAA), IEEE, Tokyo, Japan, 2017. http://www.dslab.it.aoyama.ac.jp/dsaa2017/tutorials/#Vis
- Tetri Widiyani, Yukari Shirota and Riri Fitri Sari, "A morphometries analysis method for craniofacial differences of ancient humans," Prof. of 2nd International Conference on Automation, Cognitive Science, Optics, Micro Electro Mechanical System, and Information Technology (ICACOMIT), Jakarta, 2017, pp. 22-27, 10.1109/ICACOMIT.2017.8253380
- Yukari Shirota, Alfan Presekal, and Riri Fitri Sari, "Visualization of Time Series Change on GDP Per Electricity by Provinces in Indonesia," Proc of Intl. Electronics Symp. on Knowledge Creation and Intelligent Computing (IES-KCIC), October 29-30th, 2018, Bali, pp. 333-336.
  - \*\* First, I was planning to read the paper in IES-KCIC. However, owing to the earthquake in 2018 August, I asked Mr Alfan to attend the conference. Japan and Indonesia are earthquake-prone countries and we can understand the impacts deeply.