

Sari Panikkassery Sasidharan:

**Application of Plasma Modified Polyethylene in Composites with Natural
Materials**

Ph.D. Thesis

Evaluation of the supervisor

I met Mrs. Sari Panikkassery Sasidharan during my participation at the IC meeting at the Mahatma Gandhi University in Kotayam, India. Sari contacted me and expressed her interest in investigation of composite materials and in collaboration with my group in frame of the PhD study. Together with her Indian supervisor Prof. Dr. Sabu Thomas we agreed to focus Sari's topic of her PhD study on application of plasma treated PE with natural rubber and or natural fibers within our mutual collaboration.

Mrs. Sari Panikkassery Sasidharan embarked her PhD in the MGU laboratories in Kotayam, where she performed the investigation of the PE/natural rubber. Since 2015 she has continued with her study at the Czech Technical University in Prague. From personal reasons she had to interrupt her stay for two times. During her stay in Prague she performed several experiments dealing with investigation of composite materials with natural fibers. In connection with Indian industry she decided to use as the reinforcement coco fibers.

Mrs. Sari Panikkassery Sasidharan works very intensive and hard. Except standard experiments she installed and brought into operation the laboratory device for rotomolding technology and prepared a lot of samples of composite materials with coco fibers immersed in PE matrix. She focused her study on the effect of plasma treated PE raw material to improvement of mechanical properties of the resulted composite. She achieved very interesting results. I also appreciate her publication activity. Her results have been already published in prestigious international journals with impact factor. Her work is a very good base and will be continued by other PhD and also Master students of the Material Engineering at our department.

According to my opinion the PhD of Sari Panikkassery Sasidharan fulfils all demands and I recommend to award Mrs. Sari Panikkassery Sasidharan after successful defend with the Ph.D. degree. I wish Mrs. Sari Panikkassery Sasidharan all the best in her next life.

Prague, April 20th, 2019

Prof. RNDr. Petr Špatenka, CSc.