

BananaSWaT

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Dye industry is one of the industries that produce high income to economic growth in several countries around the world. However, the wastewater generated contains high organic and inorganic contaminants which exceed the standard effluent of industrial wastewater by Department of Environment. Banana stem is an agricultural plant waste which is among the popular fruit grown in Asia. A few tons per hectare of the banana stem has been estimated annually and lead to disposal issues. Hence, the researchers have invented new adsorbent media

known as 'BananaSWaT' function as an adsorbent to overcome the problem. This project has won a gold medal in the INDES 2019, silver medal in the PIID 2019 and published in the ICoNSET 2019. This project is lead by Dr Nor Azliza Akbar, and the experimental work has been conducted by a group of students which carried out the Final Year Project to investigate the potential use of BananaSWaT in removing colour from the synthetic dye. BananaSWaT has been introduced as a unique and agro-waste adsorbent in treating dye wastewater and able to provide excellent resources in producing low-

cost adsorbent rather than current adsorbent. It is a green product which can be invented as filter media in dye wastewater treatment. This product is recommended as an alternative adsorbent media and has the potential to be commercialised.

