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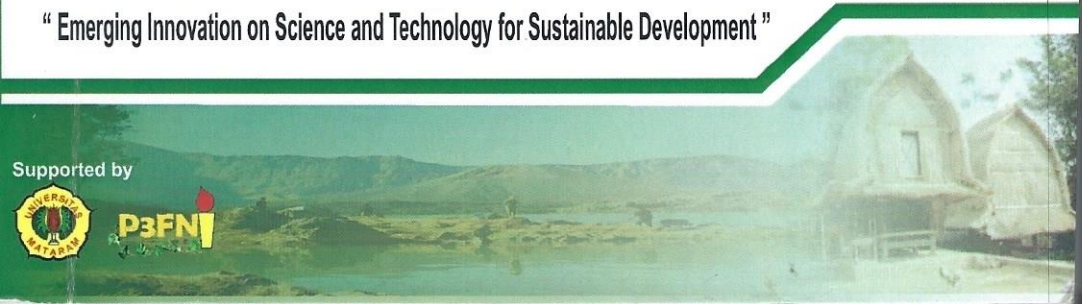
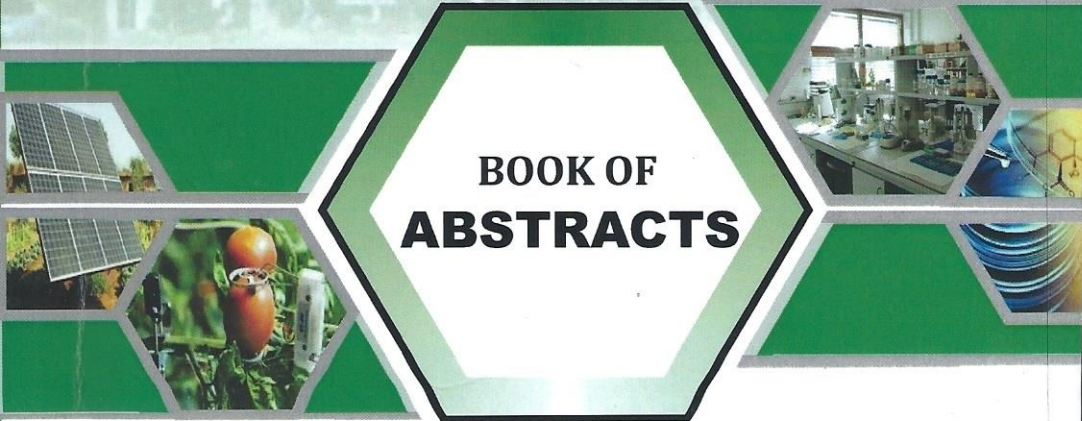
Handwritten signature and name: *Dr. Satrio Sukirno*

The 1<sup>st</sup> International Conference on  
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BOOK OF  
ABSTRACTS

"Emerging Innovation on Science and Technology for Sustainable Development"

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## Proximate Analysis and Glycaemic Index Value Of Raw Materials of Functional Analog Rice Produced from Cassava, Corn, Pigeon Pea and Seaweed Cultivated in East Lombok.

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### ABSTRACT

East Lombok is rich in crops such as corn, and cassava. Another potential product is seaweed that is most cultivated in the coastal area of TelukEkas. Healthy food source cultivated in the area isLebui (pigeon pea) that has been already reported to have some bioactivities such as antioxidant. In order to support community capacity building and community income, functional analog rice produced from the selected local resources will be developed. Proximate and Glycaemic index value are two important parameters that need to be measured in screening of raw materials of the developed functional analog rice. Moisture, ash, protein, lipid and crude fiber contents were measured in the proximate analysis. For glycaemic index analysis, raw material flour of cassava, corn, seaweed and lebui (pigeon pea) were administered orally to rats and blood were taken at 0; 0,5; 1 and 2 hour after administration. Glucose was also administered as a standard. Glucose levels were determined using GOD-PAP kit and GI value were calculated as a ratio of AUC of raw materials to glucose. Results of this study showed thatthe raw materias have low lipid content at range 0.09 – 017%. Lebui has highest protein contents compared to other material such as corn, seaweed and cassava. Content of crude fiber in seaweed is highest (19.01%), followed by lebui (17, 61%), cassava (8.77%) and corn (8.44%), respectively. Furthermore, glycaemic index value of the materials was also low in range 62.5-80.5% compared to glucose as standard (100%). Four selected crops are suitable for raw material of functional analog rice due to the low of lipid content, but high in protein. Their low GI value is also another benefit that make them to be good source of healthy food ingredients.

**Keywords:** proximate, glycaemic index, cassava, corn, seaweed and lebui (pigeon pea)



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