RISTEKDIKTI

ICTROPS 2017

INTERNATIONAL CONFERENCE ON TROPICAL STUDIES AND ITS APPLICATIONS

NOVEMBER 9-10, 2017

ASTON SAMARINDA HOTEL & CONVENTION CENTER

EAST KALIMANTAN, INDONESIA

THEME:

Tropical Studies and Application for Better Life

PROCEEDINGS INDEXED BY:

IOP Conference Series
Earth and Environmental Science

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CO-ORGANIZED BY:

FOREWORD FROM THE CHAIRMAN OF ORGANIZING COMMITTEE

Dear participants,

The International Conference on Tropical Studies and Its Application (ICTROPS) annual conference in November 9th, 2017, is organized by Universitas Mulawarman as a program of Islamic Development Bank Project. ICTROPS-2017 will offer generous opportunities for renowned researchers and Industries across the globe to share ideas and knowledge especially in the area of Tropical Studies. The conference also aims to exchange information and networking among researchers and industries, in particular the member of the 4 in 1 consortium (Universitas Mulawarman, Universitas Sultan Ageng Tirtayasa, Universitas Negeri Jember and Universitas Negeri Malang). The conference will feature oral presentation, poster presentation, and keynote speech.

ICTROPS-2017 with a theme "Tropical Studies and Application for Better Life" will cover all key areas in Germ Plasm (Diversity); Ecosystem and Environmental Engineering; Ecological Integrity and Environmental Issue; Biodiversity Mapping; Natural and Basic Science in Tropical Studies; Biomaterial, Biotechnology and Renewable Energy; and Forestry.

I am very pleased that we have renowned keynote and invited speakers, Prof. Alan L. Chaffee from Monash University, Australia, Dr. Do Thi My Lien from Saigon University, Vietnam, Prof. Dr. Bernatal Saragih, M.Si. from Universitas Mulawarman, Dr. Fatah Sulaiman, M.T. and Dr. Rida Oktorida Khastini from Universitas Sultan Ageng Tirtayasa, Dr. Drs. Fatchur Rohman, M.Si. from Universitas Negeri Malang, Dr. Erwin Nur Rif'ah from Universitas Negeri Jember, Indonesia who have high reputation and commitment in their field. It is an honor and privilege to have them as speakers as I strongly believe that their contribution would be beneficial to the people working in this field.

For ICTROPS-2017, we received a large number of abstracts and there are 123 accepted abstracts for 101 oral presentations and 22 poster presentations. The selected articles will be published in IOP conference series: Earth and Environmental Science.

On behalf of the organizing committee, I would like to welcome all of speakers and participants. Please enjoy the conference and our city, Samarinda.

Dr. Rahmat Gunawan, M.Si.
Chair of Organizing Committee

NBS-108

TITLE CHARACTERIZATION OF ORGANIC LIQUID ORGANIC FERTILIZER ORGANISM THE ORIGIN OF SOME LOCAL MICROORGANISMS (MOL)

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An experiment to study the properties of microbes isolated from local microorganism origin snails, banana peels, manure, and bamboo roots have been conducted from March to November 2016. It has been tested in the form of: conformance test between isolates, cellulolitic qualitative test, test antagonism against pathogenic fungi roots, siderophores production test, test nematode mortality, phosphate leaching test, and the isolation of bacterial nitrification. Conformance test results obtained between isolates of *Aspergillus niger*, *A. flavus* and *A. fumigates* tuned to each other and there is no conformity in *Penicillium notatum* and *Trichoderma harzianum*. *T. harzianum* showed the best potential antagonist ability against Fusarium 50, 7%. *Aspergillus spp. Penicillium sp.*, *P. notatum*, and *T. harzianum* capable of causing mortality of *Meloidogyne incognita* nematode eggs 80, 3%. Most bacteria are cellulolitic. Sellulotik index *Bacillus niacini* highest with an index of 6.5 on local microorganism origin of bamboo root. All isolates did not have the ability phosphate solvent, siderophores, and nitrification.

Keywords: *Microbia, compatible, fusarium antagonists, nematode mortality, cellulolytic*

NBS-109

USE OF FLOYD-WARSHALL ALGORITHM TO DETERMINE THE SHORTEST PATH BASED ON ANDROID

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Abstract the development of technology has made all areas of life easier now, one of which is the ease of obtaining geographic information. the use of geographic information may vary according to need, for example the digital map learning, navigation systems, observations area, and much more. with the support of adequate infrastructure, almost no one will ever get lost to a destination even to foreign places or that have never been visited before. the reasons why many institutions and business entities use technology to improve services to consumers and to streamline the production process undertaken and so forth. Speaking of the efficient, there are many elements related to efficiency in navigation systems, and one of them is the efficiency in terms of distance. the shortest distance determination algorithm required in this research is used Floyd-Warshall Algorithm. Floyd-Warshall algorithm is the algorithm to find the fastest path and the shortest distance between 2 nodes, while the program is intended to find the path of more than 2 nodes.

Keywords: *Floyd-Warshall; the shortest-distance; android*