

DISERTASI

**PEMBANGUNAN *FRAMEWORK* PRODUKTIVITAS
PENELITIAN DOSEN DI PERGURUAN TINGGI**

**Diajukan untuk memenuhi salah satu syarat memperoleh gelar
Doktor Ilmu Teknik**



**AHMAD SANMORINO
NIM. 03043621924003**

**PROGRAM STUDI DOKTOR ILMU TEKNIK
FAKULTAS TEKNIK
UNIVERSITAS SRIWIJAYA
2022**

HALAMAN PENGESAHAN

PEMBANGUNAN *FRAMEWORK* PRODUKTIVITAS PENELITIAN DOSEN
DI PERGURUAN TINGGI

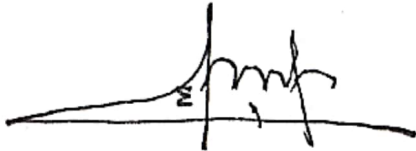
DISERTASI

Diajukan Untuk Melengkapi Salah Satu Syarat
Memperoleh Gelar Doktor Dalam Bidang Ilmu Teknik Informatika

Oleh
AHMAD SANMORINO
03043621924003

Palembang, 11 Maret 2022

Promotor



Dr. Ermatita, M.Kom
NIP. 196709132006042001

Ko-Promotor 1



Samsuryadi, M.Kom, Ph.D
NIP. 197102041997021003

Ko-Promotor 2



Dian Palupi Rini, M.Kom, Ph.D
NIP. 197802232006042002

Koordinator Prodi



Prof. Dr. Ir. Nukman, M.T.
NIP. 195903211987031001

Mengetahui

Dekan Fakultas Teknik



Prof. Dr. Eng. Ir. Joni Arliansyah, M.T.
NIP. 196706151995121002

HALAMAN PERSETUJUAN

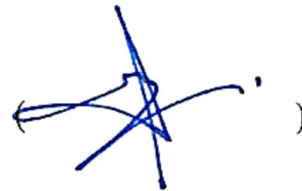
Karya tulis ilmiah berupa laporan disertasi ini dengan judul “Pembangunan *Framework* Produktivitas Penelitian Dosen di Perguruan Tinggi” telah dipertahankan dihadapan Tim Penguji Karya Tulis Ilmiah Program Studi Doktor Ilmu Teknik Fakultas Teknik Universitas Sriwijaya pada tanggal: 11 Maret 2022.

Palembang, 11 Maret 2022

Tim Penguji Karya Tulis Ilmiah berupa Laporan Disertasi

Ketua

Prof. Dr. Eng. Ir. Joni Arliansyah, M.T.
NIP. 196706151995121002



)



Anggota

1. Prof. Dr. Ir. Agus Buono, M.Si., M.Kom.
NIP. 196607021993021001



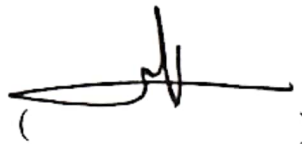
)

2. Deris Stiawan, M.T., Ph.D
NIP. 197806172006041002



)

3. Dr. Abdiansah, S.Kom., M.Cs.
NIP. 198410012009121005



)

Mengetahui
Dekan Fakultas Teknik



Prof. Dr. Eng. Ir. Joni Arliansyah, M.T.
NIP. 196706151995121002

Koordinator Program Studi



Prof. Dr. Ir. Nukman, M.T.
NIP. 195903211987031001

SUMMARY

THE DEVELOPMENT OF LECTURER RESEARCH PRODUCTIVITY FRAMEWORK IN HIGHER EDUCATION

Scientific papers in the form of a dissertation, March 11, 2022.

Ahmad Sanmorino, M.Kom; supervised by Dr. Ermatita, M.Kom, Dr. Samsuryadi, M.Kom, and Dr. Dian Palupi Rini, M.Kom.

Doctoral Program of Engineering, Faculty of Engineering, Universitas Sriwijaya.

The Development of Lecturer Research Productivity Framework in Higher Education

This study aims to build a framework for lecturer research productivity in a higher education institution (HEI). To build a framework, the variables that affect research productivity in HEI must first be selected. The selection of variables using three mechanisms: Feature Importance (FI), Univariate Selection (U), Correlation Matrix (CM) resulted in eight variables that have a positive effect on research productivity: Article (FI: 0.33631, U: 154.38, CM: 0.79), Citation (FI: 0.25761, U: 95.86, CM: 0.70), Conference (FI: 0.16876, U: 68.67, CM: 0.57), Functional Position (FI: 0.05544, U: 10.13, CM: 0.29), Grants (FI: 0.04647, U: 35.40, CM: 0.36), IPR (FI: 0.04221, U: 19.81, CM: 0.27), Education (FI: 0.03768, U: 2.57, CM: 0.26), and Award Winner (FI: 0.02311, U: 2.66, CM: 0.26). In the next step, the selected variables convert into independent variables and dependent variables which are used as components to build the framework.

For the purpose of testing and evaluating, this study involved four data mining algorithms (Support Vector Machine (SVM), Decision Tree (DT), K-Nearest Neighbors (K-NN), and Naïve Bayes (NB)). on the variables that make up the framework, the accuracy scores for each algorithm are obtained: SVM by 92 percent, DT by 86 percent, K-NN by 87 percent, and NB by 81 percent. In the last chapter, the formula for calculating the level of lecturer research productivity was also provided. The proposed formula is still premature, but it can pave the way for more in-depth research in the future.

Keywords: Variable Selection, Framework Development, Lecturer Research Productivity, Higher Education Institution