

# Jurnal Pensil

E-ISSN: 2623-1085

P-ISSN: 2301-8437

*Jurnal Pensil: Pendidikan Teknik Sipil*

DOI: <https://doi.org/10.21009/PenSil>

Jpensil is published in collaboration:



Pendidikan Teknik Bangunan



LPPM



**ADGVI**  
ASOSIASI DOSEN & GURU VOKASI INDONESIA  
ASSOCIATION OF INDOONESIAN VOCATIONAL EDUCATORS



**BMPTSSI**  
Badan Musyawarah  
Pendidikan Tinggi Teknik Sipil  
Seluruh Indonesia

## Jurnal Pensil : Pendidikan Teknik Sipil (Jpensil)

*Abstracting and Indexing:*



## **Jurnal Pensil : Pendidikan Teknik Sipil**

Vol 11 No 1 (2022)

### **ASSESSMENT OF E-PROCUREMENT SUBJECTS' MISSTEPS FOR CONSTRUCTION AND CONSULTANCY SERVICES THROUGHOUT THE SURABAYA CITY AREA AS AN EDUCATIONAL ADJUNCT FOR PROJECT TENDER COURSES**

Gde Agus Yudha Prawira Adistana, Mas Suryanto HS , Purwo Mahardi , Mochamad Firmansyah Sofianto

### **COMMUNITY SATISFACTION INDEX (SMI) REPORT AT SMKN 1 CIBINONG**

Umi Kulsum, Trias Tino Taufik

### **MOMENT-CURVATURE ANALYSIS OF GRADED CONCRETE BEAM WITH CONCRETE STRENGTH DISPARITY VARIATIONS**

M. Mirza Abdillah Pratama, Moch. Febrian Andi, Christian Hadhinata

### **DEVELOPMENT OF ANIMATION VIDEO LEARNING MEDIA FOR URBAN DRAINAGE COURSES IN BUILDING ENGINEERING EDUCATION**

Muhamad Arin Fatkhul Huda, Arris Maulana

### **ANALYSIS OF DAMAGE LEVEL AND COST ESTIMATION OF THE SAMUDRAJAYA 04 BEKASI STATE ELEMENTARY SCHOOL BUILDING**

Anisah Anisah, Lenggogeni Lenggogeni, Sri Langsih Agustina

### **DEVELOPMENT OF LEARNING VIDEO MEDIA ON BUILDING CONSTRUCTION BASIC LESSONS**

**Study of Class X Students in the Modeling and Building Information Design Expertise Program at SMK Negeri 2 Binjai**

Nova Riris Mendrova

### **DEVELOPMENT OF ENGINEERING DRAWING LEARNING MODULE FOR VOCATIONAL STUDENT AT PROPERTY CONSTRUCTION BUSINESS EXPERTISE PROGRAM**

Luthfi Arfianti

### **COMPARATIVE STUDY OF RIGID PAVEMENT PLANNING USING BINA MARGA 2017 AND AASHTO 1993 METHODS**

Egi Firgiansyah, Prihantono Prihantono, Daryati Daryati

### **DIFFICULTY FACTORS IN IMPLEMENTING ONLINE TEACHING SKILLS PRACTICE STUDENTS OF BUILDING ENGINEERING EDUCATION STUDY PROGRAM JAKARTA STATE UNIVERSITY**

Sinta Dwi Cahyanti, Daryati Daryati, Rosmawita Saleh

### **Editor-in-Chief**

R. Eka Murtinugraha, M.Pd (Universitas Negeri Jakarta, Indonesia)

### **Editors**

Dr. Riyan Arthur, M.Pd (Universitas Negeri Jakarta)

Samuel Layang, S.T.,M.T (Universitas Palangka Raya)

Sri Wahyuningsih, S.E.,M.M (Sekolah Tinggi Manajemen IMMI)

M. Agphin Ramadhan, M.Pd (Universitas Negeri Jakarta)

Shilmi Arifah, M.Pd (Universitas Negeri Jakarta)

### **Layout Editors**

Nurul Annisa, S.Pd

Yusrina Luthfiana, S.Pd

### **Editorial Address**

LPPM UNJ, Gedung Ki Hajar Dewantara Lt.6-7, Jalan Rawamangun Muka, Jakarta Timur,  
Provinsi DKI Jakarta, Indonesia

### **Social Media**



Jurnal Pensil



jurnalpencil



Jurnal Pensil Pendidikan Teknik Sipil

## Reviewers

- Prof. Dr. Joni Bungai (Universitas Palangkaraya, Indonesia)
- Prof. Dr. Ir. Syafwandi, M.Si (STIA Menara Siswa, Indonesia)
- Dr. Faizal Amin Nur Y (University Tun Hussein Onn Malaysia, Malaysia)
- Dr. Sudjani, M.Pd (Universitas Pendidikan Indonesia, Indonesia)
- Dr. Amat Jaedun, M.Pd (Universitas Negeri Yogyakarta, Indonesia)
- Dr. R. Machmud Sugandi, S.T., M.T (Universitas Negeri Malang, Indonesia)
- Dr. Ahmad, S.Pd, M.Pd (Universitas Negeri Malang, Indonesia)
- Dr. Zulkifli Matondang, M.Si (Universitas Negeri Medan, Indonesia)
- Dr. Tuti Iriani, M.Si (Universitas Negeri Jakarta, Indonesia)
- Dr. Santoso Sri Handoyo, M.T (Universitas Negeri Jakarta, Indonesia)
- Dr. Cecep Kustandi, M.Pd (Universitas Negeri Jakarta, Indonesia)
- Dr. Supriyadi, M. Pd (Universitas Panca Sakti Bekasi, Indonesia)
- Dr. Roemintoyo, ST, M.Pd (Universitas Sebelas Maret, Indonesia)
- Dr. Indra Perdana (Universitas Palangkaraya, Indonesia)
- Dr. Syafiadi Rizki Abdila, S.T (Universitas Mercubuana, Indonesia)
- Zaharuddin, SE., MM., Ph.D (Sekolah Tinggi Manajemen IMMI, Indonesia)

## EDITORIAL FOREWARD

Jurnal Pensil : Pendidikan Teknik Sipil is intended for all academics in Civil Engineering Vocational Education. The presence of the Jurnal Pensil : Pendidikan Teknik Sipil is expected to contribute to the scientific development of educational and vocational technology in civil engineering. The scope of the Jurnal Pensil : Pendidikan Teknik Sipil includes the results of quantitative, qualitative research, experiments, surveys, development, competence, construction management, and scientific studies in the form of literature studies that aim to improve quality and build innovation in technological and vocational education in the field of Civil Engineering.

Jpensil Volume 11 Issue 1 contains 9 articles: 1) Assessment of E-Procurement Subjects' Missteps for Construction and Consultancy Services Throughout The Surabaya City Area As An Educational Adjunct for Project Tender Courses; 2) Community Satisfaction Index (SMI) Report at SMKN 1 Cibinong; 3) Moment-Curvature Analysis of Graded Concrete Beam with Concrete Strength Disparity Variations; 4) Development of Animation Video Learning Media for Urban Drainage Courses In Building Engineering Education; 5) Analysis of Damage Level and Cost Estimation of The Samudrajaya 04 Bekasi State Elementary School Building; 6) Development of Learning Video Media on Building Construction Basic Lessons (Study of Class X Students in the Modeling and Building Information Design Expertise Program at SMK Negeri 2 Binjai); 7) Development of Engineering Drawing Learning Module for Vocational Student at Property Construction Business Expertise Program; 8) Comparative Study of Rigid Pavement Planning Using Bina Marga 2017 and AASHTO 1993 Methods; 9) Difficulty Factors In Implementing Online Teaching Skills Practice Students of Building Engineering Education Study Program Jakarta State University.

Hopefully, Jpensil can be a reference for readers and researchers in developing civil engineering education.

Jakarta, 30 Januari 2022

Editor-in-Chief

R. Eka Murtinugraha

---

## TABLE OF CONTENTS

<b>ASSESSMENT OF E-PROCUREMENT SUBJECTS' MISSTEPS FOR CONSTRUCTION AND CONSULTANCY SERVICES THROUGHOUT THE SURABAYA CITY AREA AS AN EDUCATIONAL ADJUNCT FOR PROJECT TENDER COURSES</b>	1 – 9
Gde Agus Yudha Prawira Adistana, Mas Suryanto HS , Purwo Mahardi , Mochamad Firmansyah Sofianto	
<b>COMMUNITY SATISFACTION INDEX (SMI) REPORT AT SMKN 1 CIBINONG</b>	10 - 19
Umi Kulsum, Trias Tino Taufik	
<b>MOMENT-CURVATURE ANALYSIS OF GRADED CONCRETE BEAM WITH CONCRETE STRENGTH DISPARITY VARIATIONS</b>	20 - 35
M. Mirza Abdillah Pratama, Moch. Febrian Andi, Christian Hadhinata	
<b>DEVELOPMENT OF ANIMATION VIDEO LEARNING MEDIA FOR URBAN DRAINAGE COURSES IN BUILDING ENGINEERING EDUCATION</b>	36 - 46
Muhamad Arin Fatkhul Huda, Arris Maulana	
<b>ANALYSIS OF DAMAGE LEVEL AND COST ESTIMATION OF THE SAMUDRAJAYA 04 BEKASI STATE ELEMENTARY SCHOOL BUILDING</b>	47 - 55
Anisah Anisah, Lenggogeni Lenggogeni, Sri Langsih Agustina	
<b>DEVELOPMENT OF LEARNING VIDEO MEDIA ON BUILDING CONSTRUCTION BASIC LESSONS Study of Class X Students in the Modeling and Building Information Design Expertise Program at SMK Negeri 2 Binjai</b>	56 - 64
Nova Riris Mendrova	
<b>DEVELOPMENT OF ENGINEERING DRAWING LEARNING MODULE FOR VOCATIONAL STUDENT AT PROPERTY CONSTRUCTION BUSINESS EXPERTISE PROGRAM</b>	65 - 77
Luthfi Arfianti	
<b>COMPARATIVE STUDY OF RIGID PAVEMENT PLANNING USING BINA MARGA 2017 AND AASHTO 1993 METHODS</b>	78 - 91
Egi Firgiansyah, Prihantono Prihantono, Daryati Daryati	
<b>DIFFICULTY FACTORS IN IMPLEMENTING ONLINE TEACHING SKILLS PRACTICE STUDENTS OF BUILDING ENGINEERING EDUCATION STUDY PROGRAM JAKARTA STATE UNIVERSITY</b>	92 - 101
Sinta Dwi Cahyanti, Daryati Daryati, Rosmawita Saleh	