



UNIVERSITAS  
GADJAH MADA

**Fluid-Structure Interaction Modeling using Solid Elements Method in SAP2000**

Sarah Eden Suryanto, Prof. Dr. Ir. Bambang Supriyadi, CES., DEA., IPU., ASEAN.Eng.; Prof. Ir. Iman Satyarno, M.E.

Universitas Gadjah Mada, 2026 | Diunduh dari <http://etd.repository.ugm.ac.id/>

# **FLUID–STRUCTURE INTERACTION MODELING USING SOLID ELEMENTS METHOD IN SAP2000**

DISSERTATION



By:

**SARAH EDEN SURYANTO**

**22 / 499307 / STK / 00981**

**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING**

**FACULTY OF ENGINEERING, GADJAH MADA UNIVERSITY**

**YOGYAKARTA, INDONESIA**

**2026**



**APPROVAL PAGE**

The Dissertation Advisory Committee approves the Dissertation

**FLUID-STRUCTURE INTERACTION MODELING USING  
SOLID ELEMENTS METHOD IN SAP2000**

Arranged by:

**Sarah Eden Suryanto**

22/499307/STK/00981

**Supervisor:**

Name and full title

Prof. Dr. Ir. Bambang Supriyadi,  
CES., DEA., IPU., ASEAN.Eng.

Date:

22-1-26

**Co-Supervisor:**

Name and full title

Prof. Ir. Iman Satyarno, M.E., Ph.D.,  
IPU.

Date:

29/01/2026

**Co-Supervisor:**

Name and full title

Ir. Ashar Saputra, S.T., M.T., Ph.D.,  
IPM., ASEAN.Eng.

Date:

22/01/2026



**VERIFICATION PAGE**

**DISSERTATION**

**FLUID-STRUCTURE INTERACTION MODELING USING**

**SOLID ELEMENTS METHOD IN SAP2000**

Arranged by

**Sarah Eden Suryanto**

22/499307/STK/00981

**Chair of the Board of Examiners:**

Prof. Dr.Eng. Ir. M. Zudhy Irawan, S.T., M.T., IPM.

Date: 28 jan 2026

**Supervisor:**

Prof. Dr. Ir. Bambang Supriyadi, CES., DEA., IPU., ASEAN.Eng.

Date:

**Co-Supervisor:**

Prof. Ir. Iman Satyarno, M.E., Ph.D., IPU.

Date:

**Co-Supervisor:**

Ir. Ashar Saputra, S.T., M.T., Ph.D., IPM., ASEAN.Eng.

Date: 27/01/2026

**Examiner:**

Angga Fajar Setiawan, S.T., M.Eng., Ph.D.

Date: 22/01/2026

**Examiner:**

Akhmad Aminullah, S.T., M.T., Ph.D. IPU.

Date: 22/01/2026

**External Examiner:**

Prof. Ir. Yoyong Arfiadi, M. Eng., Ph.D.

Date: 22/01/2026

**Head of Study Program:**

Prof. Dr. es.sc.tech. Ir. Ahmad Rifa'i, MT., IPM., ASEAN.Eng.

Date: 27 January 2026

Has been defended in front of the Examiner on 22 January 2026