



MEMORANDUM

To: Julio Frenk
University President

From: Linda L. Neider
Chair, Faculty Senate

A handwritten signature in blue ink, appearing to read 'L. Neider', is written over the 'From:' field.

Date: October 1, 2021

Subject: Faculty Senate Legislation #2021-11(B) – Name Change of the Department of Industrial Engineering TO the Department of Industrial and Systems Engineering, College of Engineering

The Faculty Senate, at its September 29, 2021, meeting, had no objections to College of Engineering’s proposal to change the name of the Department of Industrial Engineering TO the Department of Industrial and Systems Engineering. This change is believed will provide better alignment with the work of current Industrial Engineering faculty, course offerings, Umbrella Professional Society, College of Engineering Thrusts and with undergraduate recruitment.

The proposal is enclosed for your reference.

This legislation is now forwarded to you for your action.

LLN/rh

Enclosure

cc: Jeffrey Duerk, Executive Vice President and Provost
Pratim Biswas, Dean, College of Engineering
Vincent Omachonu, Chair, Industrial Engineering, College of Engineering
Nina Miville, Associate Professor of Practice, Industrial Engineering, College of Engineering

CAPSULE: Faculty Senate Legislation #2021-11(B) – Name Change of the Department of Industrial Engineering TO the Department of Industrial and Systems Engineering, College of Engineering

PRESIDENT’S RESPONSE

APPROVED:  DATE: 10/15/21
(President’s Signature)

OFFICE OR INDIVIDUAL TO IMPLEMENT: Pratim Biswas, Dean, College of Engineering _____

EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY
(pending any additional approval by the Board of Trustees)

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____



Non-Curricular Proposal Submission Form

Please refer to the [Procedures for Program Changes](#) document for information on the approvals and notifications needed for program changes and the [Proposal Submissions Specifications](#) document for an explanation of the process and a list of the materials required.

(Please note that change approvals can take 2 semesters to complete.)

FORM INSTRUCTIONS:

1. Save/download the form as a pdf.
2. After completing the information below, print and scan the form.
3. Insert it with the background materials that are specified, in the order listed, and submit to facsen@miami.edu.

Please note: only scanned versions can be accepted.

Include this checklist at the beginning of each proposal.

KEY CONTACT PERSONNEL INFORMATION

First Name

Last Name

Proponent's Title

Department, if applicable

School/College

E-mail

Phone

Title of Proposal

MANDATORY MEMORANDA AND FORMAT

Please check that each item listed below is included in the proposal package of materials, in the ORDER as listed. The applicable title (i.e. Letter of Explanation, Memo from the Dean, etc.) is to precede each section in the materials.

Only proposals conforming to this format will be accepted.

1. This completed checklist.

2. Letter of explanation. (2-3 pages only, double spaced, 12 pt font)

Yes No

If no, explain why:

3. A memo from the dean(s) signifying approval of the faculty of the relevant School(s) / Colleges(s).

Yes No

If no, explain why:

4. A memo that all affected or relevant School / College Council(s) have approved.

Yes No

If no, explain why:

5. A memo from the department chair(s) signifying approval of the faculty of the relevant department(s).

Yes No

If no, explain why:

6. A memo from the Office of Accreditation and Assessment (OAA) if the proposal involves academic programs (degrees, certificates, majors, minors, concentrations, specializations, tracks, etc.) such as new programs, closing programs, or program changes (such as changes in requirements, program length, modality, name, location).

Applicable Not applicable.

If not, explain why:

7. A memo from the Graduate School Dean signifying approval of the Graduate Council (for graduate programs only) OR the University Curriculum Committee (for undergraduate programs only) recommendation form.

Applicable Not applicable.

If not, explain why:

8. Academic Deans Policy Council (ADPC) approval, for interdisciplinary issues and as appropriate. Please consult with the Dean of the Graduate School or the Secretary of the Faculty Senate to check if this is needed.

Yes No

If no, explain why:

9. Additional required documents as listed on the "Proposal Submissions Specifications," i.e. market analysis, budget information, assessment of library collections, etc. as specified.

List additional documents included:

End form.



A LETTER OF EXPLANATION

IEN DEPARTMENT NAME CHANGE PROPOSAL

INTRODUCTION

It took centuries for the world's economies to shift from agriculture to manufacturing, but the rise of the services sector is occurring at a more rapid pace. The world is amid a radical shift, with the share of total output—world GDP—accounted for by services rising dramatically in almost all countries. Indeed, some studies have shown that a few countries, such as India and Sri Lanka, have broken the historical convention by heading straight to services with a diminishing focus on the manufacturing sector. This growth in services has transformed not only the composition of the world's economic production and employment, but potentially global enterprises over the past few decades. The services sector in the United States accounts for nearly 80% of GDP. Services accounted for 86% of total US employment in 2017. Part of this shift explains the reason why many Industrial Engineering programs and organizations have since added "systems" to their names.

OBJECTIVE

The objective of this document is to propose a name change for the Department of Industrial Engineering. This proposal seeks to change the department's name to the Department of Industrial and Systems Engineering.

Definition of Industrial and Systems Engineering

The following definition of Industrial and Systems Engineering comes from the Institute of Industrial and Systems Engineers (IISE) website:

"Industrial and systems engineering is concerned with the design, improvement and installation of integrated systems comprised of people, processes, hardware and software. It draws upon specialized knowledge and skill in the mathematical, physical, and social sciences together with the principles and methods of engineering analysis and design, to specify, predict, and evaluate the results to be obtained from such systems." It should be noted that IISE is the professional society that represents our department.

JUSTIFICATION FOR A NAME CHANGE

- I. **Better alignment with work of current IE faculty:** Most of the members of the IE faculty work in the areas of systems engineering applied to the fields of energy, healthcare, data analytics, transportation, logistics and supply chain. By changing the name of the department from Industrial Engineering to Industrial and Systems Engineering, we are better able to align their research and teaching activities with what they do.
- II. **Course Offerings:** All the courses offered by the Department have their foundations in the systems thinking. From our IEN 111 to IEN 572, students are taught to incorporate systems thinking in design, analysis, evaluation, modeling and problem-solving.
- III. **Alignment with Umbrella Professional Society:** The Institute of Industrial and Systems Engineering (IISE) is the world's largest professional society dedicated solely to the support of the industrial engineering profession and individuals involved with improving quality and productivity. Founded in 1948, under the name IIE and later changed to IISE, it is an international, nonprofit association that provides leadership for the application, education, training, research, and development of industrial engineering. Industrial and Systems Engineers (ISEs) figure out a better way to do things and work in a wide array of professional areas, including management, manufacturing, logistics, health systems, retail, service and ergonomics.
- IV. **Alignment with CoE Thrusts:** The new Dean of the College of Engineering, Dr. Pratim Biswas has introduced the concepts of departmental Clusters and College Thrusts. Seven main college Thrusts have been identified as follows - Healthcare Engineering; Advanced Materials Science; Energy and Environment; Data Science and Engineering; Sustainability & Resilience; Space Science & Engineering; and Innovation & Entrepreneurship. Systems thinking is a requirement throughout all seven thrust areas.
- V. **Recruitment of Undergraduates:** The addition of the word, "systems" makes it easier to explain the field of industrial engineering to high school students who may be contemplating a career in engineering. Traditionally, the name Industrial Engineering conjures images of factories where goods are made. It makes it harder

to explain what most of our colleagues do in the fields of energy, healthcare, airlines, and other service enterprises. By changing the name to Industrial and Systems Engineering, we are better able to deliver a more comprehensive description of the field and appeal to a broader audience of prospects.

VI. Industry/Alumni Advisory Board Support

In an email to the members of the IE Industry/Alumni Advisory Board, there was a unanimous support for the name change, with most of the respondents making a similar case as the ones listed in this document.

VII. Better Alignment with What Our Graduates Do

Many industrial engineering graduates no longer work in traditional industrial settings. Adding the word "systems" better and more completely describes our fundamental focus and grants legitimacy to the roles played by our graduates in industry. This distinctiveness will underscore the fact that other organizations are beginning to assert ownership of systems activities that are appropriately or better addressed by our members.

VIII. Better Alignment with Some Research Funding Opportunities

There are some funding opportunities centered around systems engineering. Some agencies have divisions that are focused on systems engineering. For instance, NSF has the division of Engineering Design and System Engineering (EDSE), which explicitly encourages experts in systems engineering to apply.

IX. Join the Ranks of Schools We Admire: The 65% of the schools that have adopted the name, Industrial and Systems Engineering include the following:

Vincent Omachonu, Ph.D., P.E.

Professor & Chair

Department of Industrial Engineering

College of Engineering

University of Miami

1251 Memorial Drive

McArthur Building, Room 268

Coral Gables, Florida 33146

Phone: 305-284-2372

Fax: 305-284-4040

Email: vomachonu@miami.edu



MEMO FROM THE DEPARTMENT CHAIR: RE: APPROVAL OF FACULTY

The faculty of the Department of Industrial Engineering unanimously approved the department's name change from the Department of Industrial Engineering to the Department of Industrial and Systems Engineering. The approval was granted during the department's faculty meeting held on March 26, 2021.

Vincent Omachonu, Ph.D., P.E.

Professor & Chair

Department of Industrial Engineering

College of Engineering

University of Miami

1251 Memorial Drive

McArthur Building, Room 268

Coral Gables, Florida 33146

Phone: 305-284-2372

Fax: 305-284-4040

Email: vomachonu@miami.edu

UNIVERSITY OF MIAMI
COLLEGE of ENGINEERING



Pratim Biswas, Ph.D.
Dean

1251 Memorial Drive
MEB Room 255
Coral Gables, FL 33146

Ph: 305-284-6035
Fax: 305-284-2885
pbiswas@miami.edu

DATE: May 24, 2021
TO: Linda Neider, Chair of the Faculty Senate
FROM: Pratim Biswas, Dean College of Engineering *Biswas*
SUBJECT: Approval of the Dept. of Industrial Engineering Name Change

In concurrence with the Department of Industrial Engineering faculty vote and Department Chair, I hereby approve the name change from the Department of Industrial Engineering (IEN) to the Department of Industrial and Systems Engineering (ISE).

This change will be beneficial for both the department and the college.

Thank you.

UNIVERSITY OF MIAMI
COLLEGE of ENGINEERING



MEMORANDUM

TO: Faculty Senate

FROM: Elected Members of the College of Engineering College Council:
Travascio, Francesco (Speaker of the Council); Dykstra, Andrew; Ozdamar, Ozcan;
Gu, Weiyong; Kubat, Miroslav; Negahdaripour, Shahriar; Lee, Seokgi; Yao, John;
Suaris, Wimal and Wang, Gang.

DATE: May 18, 2021

SUBJECT: Approval of the Industrial Engineering Department name Change

The voting faculty of the College of Engineering delegates to the College Council the authority to approve academic changes. After soliciting comments from all of our colleagues with in the college; we met and unanimously approved the proposal for the Industrial Engineering Department name change to the Department of Industrial and Systems Engineering. It is our belief that such change will provide better alignment with: work of current IE faculty, course offering, Umbrella Professional Society, CoE Thrusts and with undergraduate recruitment. The Department has the Industry/Alumni Advisory Board Support and will have more Research Funding Opportunities.

Sincerely Yours,

Francesco Travascio, Ph.D.



MEMORANDUM

DATE: June 22, 2021

TO: Vincent Omachonu, Chair, Industrial Engineering
College of Engineering

FROM: Patty Murphy, Associate Provost 
Office of University Accreditation

RE: Renaming of Industrial Engineering Department to Department of Industrial and
Systems Engineering

The College of Engineering notified me of its intent to rename the Department of Industrial Engineering to the Department of Industrial and Systems Engineering. This change is being made to align better with the scope of the department's research and curriculum as well as the profession.

SACSCOC does not require notification or approval of changes to academic departments.

Please note that changing the department name does not affect the names of academic programs offered through the department. To change the names of degrees, majors, minors, tracks, concentrations, etc., you must submit name change proposals for each program via the CIM Program Management system.

Please contact me if you have any questions at pattymurphy@miami.edu.

cc: Faculty Senate
Karen Beckett, University Registrar
Pratim Biswas, Dean, College of Engineering
Guillermo Prado, Dean, Graduate School

UNIVERSITY OF MIAMI
GRADUATE SCHOOL




Graduate School
P.O. Box 248125
Coral Gables, FL 33124-3220

Phone: 305-284-4154
Fax: 305-284-5441
graduateschool@miami.edu

MEMORANDUM

DATE: August 20, 2021

TO: Linda Neider
Chair, Faculty Senate

FROM: Guillermo (Willy) Prado 
Dean, Graduate School

SUBJECT: Proposed Name Change to the Department of Industrial Engineering

The Department of Industrial Engineering submitted a proposal to change the name of the Department of Industrial Engineering to the Department of Industrial and Systems Engineering. The proposal was discussed at the meeting of the Graduate Council on August 17, 2021. No concerns were expressed by Council members.

CC: Nina Miville, Associate Professor of Practice, Industrial Engineering, College of Engineering
Vincent Omachonu, Professor and Chair, Industrial Engineering, College of Engineering
Pratim Biswas, Dean, College of Engineering
Tiffany Plantan, Executive Director, Graduate School
Patty Murphy, Associate Provost for University Accreditation, Office of Assessment and Accreditation