

ETM Study

Conducted by Portland State University - Engineering and Technology
Management Department

RESEARCH AND EDUCATIONAL TRENDS IN ENGINEERING AND TECHNOLOGY MANAGEMENT (ETM)

Objective

The Objective of this survey is to develop a comprehensive research guide for Engineering and Technology Management (ETM) research and education. The academic institutions offering degree (s) in ETM are asked to fill out the survey on the following pages.

For the purpose of this study, we are defining ETM as the management of the technological system including:

- **Innovation subsystem:** Management of the innovation process from the emergence of a creative though commercialization including both incremental innovation and discontinuous innovations.
- **People subsystem:** Management of engineers, scientists and others in engineering and technology.
- **Organizational subsystem:** Management of technical organizations
- **Projects/Programs subsystem:** Management of R&D and engineering projects and programs.
- **Resource subsystem:** Management of critical resources in engineering and technology development and implementation, including both conceptual and mathematical models for effective resource utilization.
- **Technology subsystem:** Management and implementation of existing and emerging technologies including both continuous and disruptive technologies in various industries.
- **Strategy and Policy subsystem:** Strategic management of technology at the corporate, industry and government levels.

Mail Information

Please return your completed survey to:

ETM Survey
Dept. of Engineering and Technology Management
Portland State University
PO Box 751
Portland, OR 97207-0751
USA
Phone: 1 (503) 725-4660
Fax: 1 (503) 725-4667
E-mail: survey@etm.pdx.edu

ETM Survey

Please provide the following information about yourself (Fields with * are required):

First Name*: _____ M.I.: _____ Last Name*: _____
Title: _____ Department/ Program Name*: _____
School of: _____
University/ College*: _____
Address: _____
City: _____ State/ Province: _____ Zip/ Postal Code: _____
Country: _____ Phone: _____ Fax: _____
Email*: _____
Department's Web Address: _____

1	Is your university on (Select only one): <input type="checkbox"/> Quarter system (10-12 weeks) <input type="checkbox"/> Semester system (14-16 weeks) <input type="checkbox"/> Other: _____
2	Title of your ETM program: _____
3	Date of establishment: _____
4	Academic base (Please check the item which best describes your ETM program): <input type="checkbox"/> Department <input type="checkbox"/> Division <input type="checkbox"/> Program <input type="checkbox"/> Option in the <input type="checkbox"/> School <input type="checkbox"/> College <input type="checkbox"/> Department of: _____ _____
5	Degree (s)/ Certificate (s) offered by your ETM program: B.S. in: _____ M.S. in: _____ M.Eng. in: _____ Ph.D. in: _____ Dr. of Eng. in: _____ Certificate: _____ Other: _____ _____

6

Nature of financial support for a typical ETM student (Check all that apply):

- Tuition paid by their employer Tuition paid by their government
 Assistantship from Dept. or Univ. Personal Funds
 Other: _____

7

Type (s) of collaboration between your ETM program and industry (check all that apply):

- ETM students conducting projects in industry Faculty consulting to industry
 Student interns in industry Faculty interns in industry
 Collaborative research projects with industry Research funding by industry
 Adjunct faculty (Part-Time faculty members employed in industry)
 Other: _____

8

Type(s) of collaboration between your ETM programs and international organizations (Check all that apply):

- Visiting scholars/professors from other countries
 Faculty exchanges
 Faculty giving lectures in other countries
 Offering courses in other countries
 Offering the full program in other countries
 Student exchanges
 Other: _____

9

Do you offer any short courses (one or two days)?

- No. Yes. In the following areas:

10

Please give approximate figures for your current teaching methods (select only one):

- 100% in the classroom. **Please go to Question 12**
 Combination of classroom teaching ____% and distance delivery ____%.
 100% distance delivery

11

Please indicate which methods you use in distance delivery of your courses (check all that apply):

- Interactive TV Pre-recorded video
 Synchronous (simultaneous) delivery on the web.
 Asynchronous (on demand)
 Other: _____

12

Optional: Please give *approximate* percentage change in your ETM enrollments.

YEAR	UNDERGRADUATE		GRADUATE	
	+%	-%	+%	-%
'97-'98 to '98-'99				
'98-'99 to '99-'00				
'99-'00 to '00-'01				
'00-'01 to '01-'02				

13

Optional: Please indicate the background of the current ETM faculty in each of the following areas:

Number of ETM Faculty:	ENGINEERING/ SCIENCE Background	BUSINESS/ MANAGEMENT Background	SOCIAL SCIENCE Background	OTHER Background	TOTAL
Tenure stream					
Adjunct					
Affiliated (in other depts.)					
Visiting					
Other					
TOTAL ETM FACULTY					

14 Please indicate the ETM- related professional organizations to which the ETM faculty members belong (check all that apply):

- | | |
|---|--|
| <input type="checkbox"/> Academy of Management | <input type="checkbox"/> AIChE-EM Division |
| <input type="checkbox"/> ASEE-EM Division | <input type="checkbox"/> ASQC |
| <input type="checkbox"/> ASEM | <input type="checkbox"/> ASCE-EM Division |
| <input type="checkbox"/> ASME- EM Division | <input type="checkbox"/> IAMOT |
| <input type="checkbox"/> IEEE-EM Society | <input type="checkbox"/> IIE-Management Division |
| <input type="checkbox"/> INFORMS | <input type="checkbox"/> PMI |
| <input type="checkbox"/> PDMA | <input type="checkbox"/> SME |
| <input type="checkbox"/> Strategic Management Society | <input type="checkbox"/> Technology Transfer Society |
| <input type="checkbox"/> Other: _____ | |
| _____ | |

15 Please list the research areas in which your ETM faculty and graduate students have been engaged in the last five years.

16 Sources of research/funding for your ETM program (check all that apply):

- Federal/Government grants and contracts
 - State/Province grants and contracts
 - Industry funding
 - University funding
 - Unfunded research
 - Other: _____
- _____

17 What potential Engineering/Technology Management research areas do you foresee as emerging in the next five years?

18 Please list recent professional meetings where papers have been presented by your ETM faculty and/or students.

19 Please list the journals in which your ETM faculty have published (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Academy of Management Journal | <input type="checkbox"/> Mgmt. and Leadership in Eng. |
| <input type="checkbox"/> California Management Review | <input type="checkbox"/> Management Review |
| <input type="checkbox"/> Engineering Mgmt. Journal [ASEM] | <input type="checkbox"/> MIS Quarterly |
| <input type="checkbox"/> Harvard Business Review | <input type="checkbox"/> Project Management Journal |
| <input type="checkbox"/> IEEE Engineering Mgmt. Review | <input type="checkbox"/> Research Tech. Management |
| <input type="checkbox"/> IEEE Transactions on Eng. Mgmt. | <input type="checkbox"/> Research Policy |
| <input type="checkbox"/> Information Systems Research | <input type="checkbox"/> Sloan Management Review |
| <input type="checkbox"/> International Journal of Tech. Mgmt. | <input type="checkbox"/> Technology Transfer |
| <input type="checkbox"/> Journal of Eng. and Tech. Mgmt. | <input type="checkbox"/> Tech. Analysis & Strategic Mgmt. |
| <input type="checkbox"/> Journal of High Tech. Mgmt. | <input type="checkbox"/> Tech. Forecasting & Social Sci. |
| <input type="checkbox"/> Journal of Mgmt. in Eng. | <input type="checkbox"/> Technology Review (MIT) |
| <input type="checkbox"/> Journal of Product Innovation Mgmt. | |
| <input type="checkbox"/> Other: _____ | |

20 List all Engineering/Technology Management related books published by your ETM faculty:

Author	Title	Publisher	Year
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

21 Do you offer an undergraduate degree in ETM ?

- Yes. No. If not, please go to question 28

22 How many years does an average ETM student take to complete the Bachelors degree requirements?

Number of Years
Full-Time _____
Part-Time _____

23 What is the *approximate* number of ETM graduates with the Bachelors degree since your program was initiated? _____

24 Please give *approximate* figures for your current undergraduate ETM enrollments.

Number: Full-Time Students _____ Part-Time Students _____ Total _____
Gender: Female _____% Male _____%
Students: International _____% Local _____% Average Age _____

25 What are the requirements in the undergraduate ETM curriculum? (Select all that apply)

Mathematics Engineering Specialty
 Physics Humanities
 Chemistry Natural Science
 Computer Science Management
 Other: _____

Total required credits for the Bachelors degree: _____

26 What are the representative titles of the management courses in your undergraduate curriculum?

27 List representative projects recently completed by your ETM students at undergraduate level (Undergraduate thesis, capstone projects, course projects, etc.)

Project Title **Year**

28 Do you offer a Masters degree?

Yes. No. If not, please go to question 35

29 How many years does an average ETM student take to complete the Masters degree requirements?

	Number of Years
Full-Time	_____
Part-Time	_____

30 Please give *approximate* number of ETM students currently enrolled at the Masters level.

Number:	Full-Time Students _____	Part-Time Students _____	Total _____
Gender:	Female _____ %	Male _____ %	
Students:	International _____ %	Local _____ %	Average Age _____

31 What is the *approximate* number of ETM graduates with the Masters degree since your program was initiated? _____

32 How many *credits* of coursework beyond the B.S level are required for the Masters degree?

Core Courses (common requirements for all) _____
Elective Courses _____
Total Credits _____

33 List representative projects recently completed by your ETM students (Masters theses, capstone projects, course projects, etc.)

Project Title	Year
---------------	------

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Dissertation None
Defense To Committee
 To all Faculty
 Other: _____

Other Please describe: _____

41 **The educational institutions which reported offering ETM degrees in earlier studies are alphabetically listed in <http://www.etm.pdx.edu/survey>. Please add any others that are known to you and check the degrees they offer.**

Institution Name	B.S.	M.S.	Ph.D.

42 **Additional Comments**

43 **How did you find out about this survey? (check all that apply):**

Email from us Mail from us Email and Mail from us
 Other: _____

44 **The web-based survey is more convenient than a paper-based survey?**

Strongly Agree Strongly Disagree
 Somewhat Agree Somewhat Disagree
 Neutral

45 **Would you like to receive a copy of the final report when this study is completed?**

Yes No