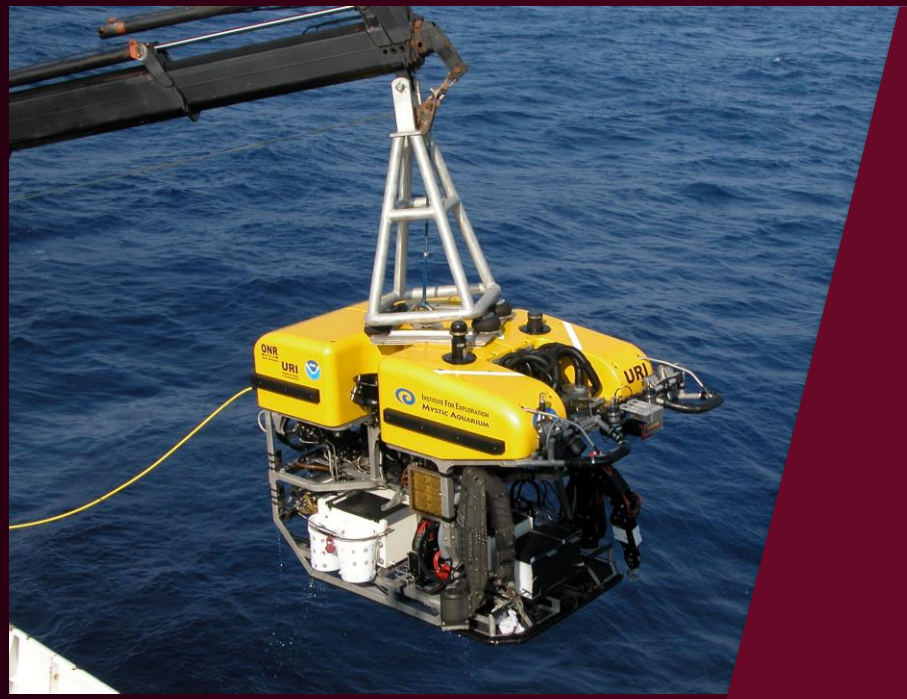
Dwight Look College of ENGINEERING
TEXAS A&M UNIVERSITY



OESI
Advisory Meeting

July 19, 2016

Phaneendra Kondapi

Agenda

- Vision/Strategy
- Objectives
- Program Plan
- Implementation
- Curriculum Plan
- Course Plan
- Industry Support

Vision

To be the leading and most comprehensive university to offer a unique subsea engineering program

Strategy

Develop a unique subsea engineering program that caters to industry by leveraging Texas A&M's strong academic and research programs.

Develop the curriculum based on the needs and expectations of the industry that can set a global foot print

"Tailored to Industry Needs"

Objectives

- Establish a high quality, industry focused Subsea Engineering degree program
- Make it relevant to wide range of subsea industry job skills
- Deliver to distance learning (online) as well as on campus students
- Gear towards working professionals and make it available for Continuing Education credits
- Compliment to existing engineering programs at TAMU
- Develop the program closely with industry
- Engage students via internships and practical/real world industry problems

Potential Program Expansion

- Subsea Masters program
  - On-campus
  - Distance Education
- Subsea Certificate program
- Subsea Undergrad Minor program
- Subsea Continuing Education program
- Qatar Subsea program
- Subsea Research

Implementation

- Collaboration
  - Within Texas A&M
    - Petroleum, Ocean Engineering & Business School
    - Other Engineering departments (ME, MSE, ChE, CE)
  - Global
    - Texas A&M Qatar
    - Other top universities around the globe
  - Global Subsea University Alliance
  - Industry

- Promotion
  - Internal A&M departments
  - Steering Committee Members
  - Conferences/Workshops
  - Presentations
    - Industry
    - Conferences
  - National/International Universities

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Master of Engineering in Engineering (Subsea Emphasis)

Present Curriculum

Required New Courses 15 SCH

- Subsea Fundamentals
- Subsea Project Implementation
- 2 Subsea Required Electives
  - Subsea Hardware
  - Pipeline Design
  - Riser Design
  - Umbilicals/Control Systems
- Seminars (2 SCH)
- Internship (1 SCH) or Directed Study

Technical Electives 15 SCH (5 Courses)

- Flow Assurance & Operability
- Production Operations
- Other Dept. Courses

Potential Subsea Areas

- ENGR630 - Subsea Fundamentals
- ENGR689 - Subsea Field Design
- ENGR689 - Flow Assurance & Operability
- ENGR689 - Subsea Project Management
- ENGR689 - Subsea Riser Design
- ENGR689 - Subsea Hardware*
- ENGR689 - Subsea Pipeline Design
- ENGR689 - Subsea Production Operations
- ENGR689 – Subsea Processing*
- ENGR689 – Subsea Umbilicals & Control Systems*
- ENGR681 – Seminars (2) + Internship or Directed Study

SURF

*Other Electives

- PETE-626 Offshore Drilling
- PETE-605 Phase Behavior of Petroleum Reservoir Fluids
- PETE-603 Advanced Reservoir Engineering I
- MEEN-624 Two-Phase Flow and Heat Transfer

Potential Subsea Areas

- ENGR630 - Subsea Fundamentals
- ENGR689 - Subsea Field Design
- ENGR689 - Flow Assurance & Operability
- ENGR689 - Subsea Project Management
- ENGR689 - Subsea Riser Design
- ENGR689 - Subsea Hardware*
- ENGR689 - Subsea Pipeline Design
- ENGR689 - Subsea Production Operations
- ENGR689 – Subsea Processing*
- ENGR689 – Subsea Umbilicals & Control Systems*
- ENGR681 – Seminars (2) + Internship or Directed Study

Flow Assurance

*Other Electives

- PETE-626 Offshore Drilling
- PETE-605 Phase Behavior of Petroleum Reservoir Fluids
- PETE-603 Advanced Reservoir Engineering I
- MEEN-624 Two-Phase Flow and Heat Transfer

Potential Subsea Areas

- ENGR630 - Subsea Fundamentals
- ENGR689 - Subsea Field Design
- ENGR689 - Flow Assurance & Operability
- ENGR689 - Subsea Project Management
- ENGR689 - Subsea Riser Design
- ENGR689 - Subsea Hardware*
- ENGR689 - Subsea Pipeline Design
- ENGR689 - Subsea Production Operations
- ENGR689 – Subsea Processing*
- ENGR689 – Subsea Umbilicals & Control Systems*
- ENGR681 – Seminars (2) + Internship or Directed Study

General Subsea

*Other Electives

- PETE-626 Offshore Drilling
- PETE-605 Phase Behavior of Petroleum Reservoir Fluids
- PETE-603 Advanced Reservoir Engineering I
- MEEN-624 Two-Phase Flow and Heat Transfer

Other Electives

*Other Electives (6 SCH – Any 2 courses)

- PETE-622 Exploration and Production Evaluation
- OCEN-678 Fluid Dynamics
- MEEN-621/622 Fluid Mechanics
- MATH-605 Mathematical Fluid Dynamics
- SYEN-645 Management of Engineering Systems
- Any relevant course from other departments

* Subject to the approval of graduate advisor

Course Plan (30 SCH)

Fall – 1 (9 or 10 SCH)

- Subsea Fundamentals
- Subsea Field Design
- FA & Operability
- Subsea Riser Design
- Subsea Hardware
- Subsea Project Management
- Subsea Seminar – 1
- Technical Elective

Spring – 1 (9 or 10 SCH)

- Production Operations
- Subsea Pipeline Design
- Subsea Processing
- Umbilicals & Controls Systems
- Subsea Seminar – 2
- Technical Elective

Summer (1 or 3 SCH) - Optional

- Internship OR
- Directed Study
- Technical Elective

Fall – 2 (9 or 10 SCH)

- Subsea Fundamentals
- Subsea Field Design
- FA & Operability
- Subsea Riser Design
- Subsea Hardware
- Subsea Project Management
- Subsea Seminar – 1
- Technical Elective

Program Application Requirements

- Application through ApplyTexas
- Student Transcripts
- GRE Scores
- Reference Letters – 3
- TOEFL – International Students
- Pre-requisites

For more information, please visit:
engineering.tamu.edu/meesubsea

Industry Support

- Promoting the program among the industry
- Guest lectures for seminar classes
- Instructors from industry
- Attracting professional students
- Review of course content
- Industry problem/project to students
- Internship opportunities
- Co-op opportunities
- Potential research opportunities

Questions and Discussion

Thank you !

OESI