

## 1: [Module I] Introduction to the Course



## 2: [Module I] Knowing your intention and audience



## 2: [Module I] Knowing your intention and audience





### 3: [Module I] Get your audience attention



## 4: [Module I] Deliver your presentation professionally



Idea Worth Sharing:  
Capstone Project





## 5: [Module I] Plotting your idea & Filling up your story

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VOL. 11, NO. 3, 193–207  
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### Experimental investigation on process parameters of near-field deposition of electrospinning-based rapid prototyping

Deepak Parajuli<sup>a</sup>, Pisut Koomsap<sup>a</sup>, Alok A. Parkhi<sup>a</sup> and Pitt Supaphol<sup>b</sup>

<sup>a</sup>Industrial and Manufacturing Engineering, School of Engineering and Technology, Asian Institute of Technology, Pathumthani, Thailand;  
<sup>b</sup>Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand

#### ABSTRACT

Near-field electrospinning (NFES) with its capability to produce a straight fine fibre has been integrated into additive manufacturing for the fabrication of scaffolds with controllable pattern structures. However, building the third dimension with NFES is not easy due to the unsolidified fibre while being deposited. Presented in this paper is an investigation on the influence of process parameters on achieving a small cylindrical fibre from the near-field fibre deposition of

been conducted on meters of interest are on and needle size. Ition and needle size eld deposition, the nperature should be

#### ARTICLE HISTORY

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#### KEYWORDS

Scaffolds; tissue engineering; layer manufacturing technologies

### Development of an electrospinning-based rapid prototyping for scaffold fabrication

Apinya Chanthakulchan, Pisut Koomsap and Kampanat Auyson

Department of Industrial and Manufacturing Engineering, Asian Institute of Technology, Pathumthani, Thailand, and  
Pitt Supaphol  
Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, Thailand

#### Abstract

**Purpose** – This paper aims to present the development of an electrospinning-based rapid prototyping (ESRP) technique for the fabrication of patterned scaffolds from fine fiber.

**Design/methodology/approach** – This ESRP technique unifies rapid prototyping (RP) and electrospinning to obtain the ability of RP to create a controllable pattern and of electrospinning to create a continuous fine fiber. The technique follows RP process of fused deposition modeling, but instead of using extrusion process for fiber creation, electrospinning is applied to generate a continuous fiber from a liquid solution. A machine prototype has been constructed and used in the experiments to evaluate the technique.

**Findings** – Three different lay-down patterns: 0°/90°, 45°/135° and 45° twists were used in the experiments. According to the experimental results, stacks of patterned layers could be created with the ESRP technique, and the fabrication process was repeatable and reproducible. However, the existing machine vibration influenced the fiber size and the ability to control straightness and gap size. Also, incomplete solidification of the fibers prior to being deposited obstructed the control of layer thickness. Improvement on vibration suppression and fiber solidification will strengthen the capability of this ESRP technique.

**Research limitations/implications** – This research is currently limited machine prototype, to the demonstration of its capability and to the ev. Further studies are required for better control of the patterned scaffolds  
**Originality/value** – This unification of the two processes allows not only of both woven and non-woven layers of fibers to be done on one mach

**Keywords** Layered manufacturing, Medical, Rapid prototyping, Scaffold

**Paper type** Research paper

Total Quality Management, 2016

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### Improving risk assessment for customer-oriented FMEA

Pisut Koomsap<sup>\*</sup> and Thuangporn Charoenchokdikol

Industrial Systems Engineering, Asian Institute of Technology, Pathumthani 12120, Thailand

Since its introduction in the aerospace industry, failure mode and effects analysis (FMEA) has been proven to be an effective risk management tool and has gained popularity in various industries. All along, FMEA has been conducted according to manufacturers' perspective. As a matter of fact, customers are also a key stakeholder group who will be affected directly if any failure modes occur. Therefore, their involvement should be considered in FMEA, but has not received much attention. Presented in this paper is an attempt to improve a customer-oriented FMEA. Customer dissatisfaction has been integrated directly into a new approach for risk assessment. Kano model has been applied to identify how customers perceive failure mode effects. A new customer-oriented risk priority number (RPN) calculation has been developed and compared with the previous customer-oriented approach as well as the traditional one. The results from a case study show that this new approach represents the customers' perspective better than the previous one, and the factors influencing the prioritisation of the failure modes are different among the three approaches. In this new approach, how the customers perceive the effects of the failure modes has the most influence.

**Keywords:** FMEA; Kano model; customer involvement; customer dissatisfaction; risk assessment

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Contents lists available at ScienceDirect

### Robotics and Computer-Integrated Manufacturing

journal homepage: [www.elsevier.com/locate/rcim](http://www.elsevier.com/locate/rcim)



### Development of tiling automation for custom mosaic design

Nuntaporn Phooripoom, Pisut Koomsap<sup>\*</sup>

Industrial & Manufacturing Engineering, Asian Institute of Technology, P.O. Box 4, Klong Luang, Pathumthani 12120, Thailand

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Tiling automation  
Assembly  
Tesserae  
Sorting

#### ABSTRACT

Mosaic is the art of design creation from tesserae, and for custom mosaic design the individual tesserae are assigned to certain positions unlike forming a random pattern. The variety of designs makes it difficult for automatic tile assembly; consequently, manual assembly is typically found in practice. This paper presents the development of a tiling automation to support custom mosaic design from uniform size square tiles. The system follows a product flow concept that the tesserae are sorted first to form a row prior to be assembled to a mosaic moving slowly on a conveyor. It allows a simple point-to-point movement for assembly. The complexity shifting from toolpath generation to tile sorting is handled in two steps: acquiring tiles needed for a row and rearranging the tiles according to the order. A shortest distance criterion has been applied for determining dispensing sequence. Hardware and software have been developed to illustrate the proposed tiling automation.

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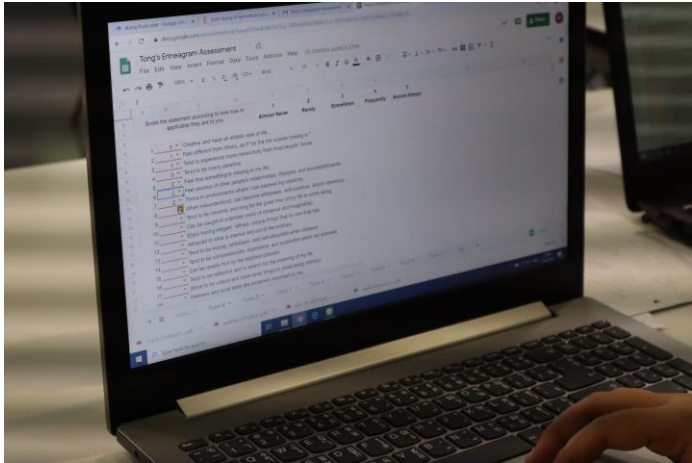


## 6: [Module I] Polishing your idea



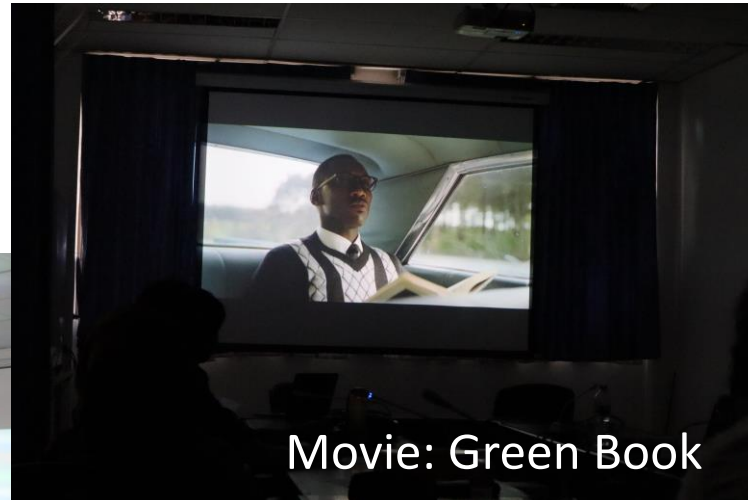
One-page Writing Assignment

## 7: [Module II] Personality, character, and cultural barrier in communication





## 8: [Module II] Emotional intelligence



## 9: [Module II] Strategic persuasive communication

### Activity 4. Goodwill Hunting

### Activity 3. The Day TED Might Have Died

### Activity 2. Telephone Game

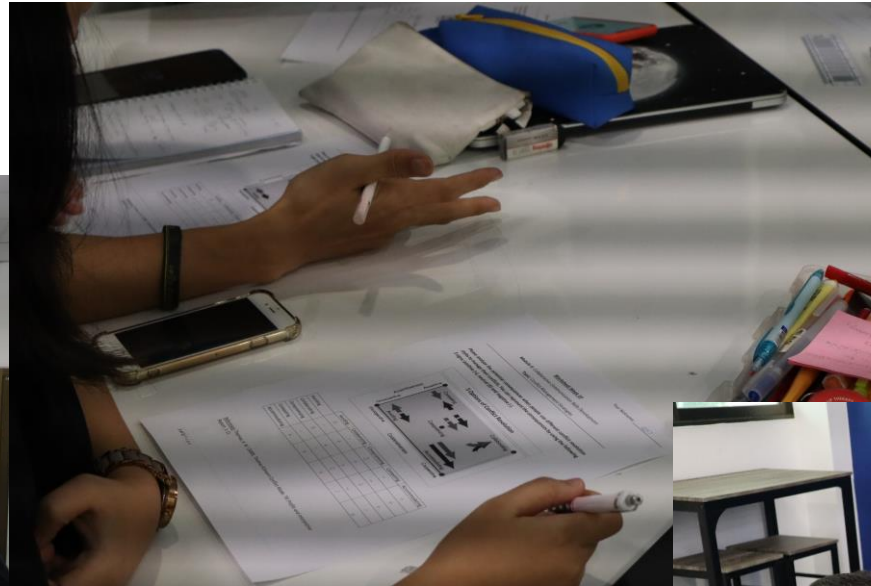
### Activity 1. Understand Someone Better Than You Do Your Friends



### Goodwill Hunting Project Presentation

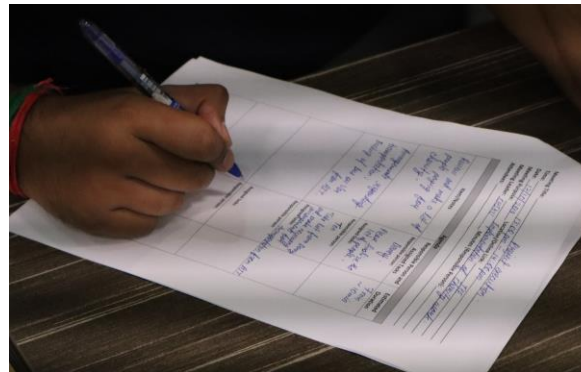


## 10: [Module II] Conflict management strategies





## 11: [Module II] Effective managerial communication in a meeting



## 12: [Module III] Knowing your leadership style



Self-Assessment



Movie: The Men Who Built America



## 13: [Module III] Cultivating your leadership and communication style



Class Meeting:  
Theme of the powerful speech



## 14 : [Module III] Nonverbal communication



## 15 : [Module III]

## Adapting your communication to different situations and audiences

## Confront the 5 Barriers

## 1. Relationships

The first potential barrier is often the one that colors all the rest: How will the other person view your relationship to him or her? Will they know you? Like you? Best of all, trust you?

## 2. Credibility

Next, you need to think about whether the other person will see you as a credible advocate for your idea. Will they view you as competent? Reliable? Someone with special expertise? This factor explains why trying to manipulate other people does not work when you are selling important ideas.

Shell, G. R., & Mousa, M. (2007). *The art of woo: using strategic persuasion to sell your ideas*. Penguin.

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## The Power of "Because"

	Statement	Success Rate
1.	"Excuse me, I have <b>five pages</b> . May I use the Xerox machine?"	60 %
2.	"Excuse me, I have <b>five pages</b> . May I use the Xerox machine <b>because</b> I am in a rush?"	94 %
3.	"Excuse me, I have <b>five pages</b> . May I use the Xerox machine <b>because</b> I have to make copies?"	93 %
4.	"Excuse me, I have <b>twenty pages</b> . May I use the Xerox machine?"	24 %
5.	"Excuse me, I have <b>twenty pages</b> . May I use the Xerox machine <b>because</b> I am in a rush?"	42 %

Shell, G. R., & Mousa, M. (2007). *The art of woo: using strategic persuasion to sell your ideas*. Penguin.

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The experiment of Ellen Langer  
a Harvard psychologist

5 minutes presentation of  
Steve Jobs to Jon Steel Team

P

**Problem:** Apple was in deep financial trouble.

C

**Cause:** 14 projects with millions in sunk costs were bleeding the firm dry.

A

**Answer:** Jobs was betting the company on the 4G and the iMac, and needed advertising help to reconnect with his customer base to set the stage for these 2 products.

N

**Net Benefits:** Jobs's focused, two-product strategy was, by implication, the best of the many alternatives the Apple leadership team had considered as ways to save the company.

Shell, G. R., & Mousa, M. (2007). *The art of woo: using strategic persuasion to sell your ideas*. Penguin.

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## 16 : [Module III]

Making your message powerful, motivating and inspiring

Your Powerful Speech



Mark Zuckerberg's  
Commencement Address  
at Harvard University, 2017

