

X

NPTEL

reviewer4@nptel.iitm.ac.in ▼

Courses » Surrogates and Approximations in Engineering Design

Announcements **Course** Ask a Question Progress Mentor FAQ

## Unit 6 - Week 4

### Course outline

How to access the portal

Pre-requisite Assignment

Week 1

Week 2

Week 3

Week 4

- Quiz : Assignment 4
- Metamodels for Safe and Efficient Automotive Structures
- Exploration and Exploitation in Surrogates
- Errors Based Exploration
- Ensemble of Surrogates
- WEEK 4 - FEEDBACK - Surrogates and Approximations in Engineering Design

### Assignment 4

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2018-09-12, 23:59 IST.**

1) The following method uses correlation of input variables to approximate response **1 point**

- Polynomial response surface
- Radial Basis Function
- Kriging
- All of the above

**No, the answer is incorrect.**  
**Score: 0**

**Accepted Answers:**  
*Kriging*

2) Global accuracy of surrogates will be improved by **1 point**

- a) Exploitation
- b) Exploration
- c) Infill samples
- d) b & c
- e) a & b

**No, the answer is incorrect.**  
**Score: 0**

**Accepted Answers:**  
*d) b & c*

3) In error based exploration, what is the infill criteria? **1 point**

- Minimum prediction variance

© 2014 NPTEL - Privacy & Terms - Honor Code - FAQs -



A project of



NPTEL

National Programme on  
Technology Enhanced Learning

In association with

NASSCOM®

Funded by

**Accepted Answers:***Maximum prediction variance*

4) Uncertainty in the prediction can be modelled by

**1 point**

- a) Estimated error
- b) Prediction variance
- c) a & b
- d) None of the above

**No, the answer is incorrect.****Score: 0****Accepted Answers:***c) a & b*

5) Minimizing the statistical lower bound is equivalent to

**1 point**

- Maximizing prediction variance
- Minimizing prediction variance
- Making prediction variance as zero
- None of the above

**No, the answer is incorrect.****Score: 0****Accepted Answers:***Maximizing prediction variance*[Previous Page](#)[End](#)