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Courses » Computer Aided Power System Analysis

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# Unit 5 - Week 4

Register for Certification exam

## Course outline

How to access the portal

Week 1

Week 2

Week 3

**Week 4**

- NRLF in rectangular coordinate
- NRLF in rectangular coordinate (Contd.)
- NRLF in rectangular coordinate (Contd..)
- Example of NRLF (Rectangular) Method
- Fast decoupled load flow (FDLF)
- Quiz : Assignment 4

Week 5

## Assignment 4

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. **Due on 2019-02-27, 23:59 IST.**

1) **Note: For solving this assignment, a computer program for implementing Newton-Raphson (Rectangular) load flow program needs to be developed.**

Consider the bus data and line data of the small 5 bus example system given in lecture 10. In this system, the real power load at bus 4 is changed to 150 MW (instead of 115 MW as given in the example). All other data of this system are same as given in lecture 10. Assume that there is no reactive power limit on any of the generators. Assume (convergence threshold) =  $1.0e^{-12}$ . Upon computing the power flow program using Newton-Raphson (Rectangular) method, the following quantities are obtained (after convergence):

**The element  $J_1(1, 1)$  is:**

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

**Accepted Answers:**  
*(Type: Range) 3.71,3.73*

2 points

2) The element  $J_2(2, 2)$  is

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

**Accepted Answers:**  
*(Type: Range) 17.67,17.69*

2 points

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<b>Week 9</b>	(Type: Range) -0.00001,0.00001	
<b>Week 10</b>		<b>2 points</b>
<b>Week 11</b>	4) The element $J_4(1, 2)$ is	
<b>Week 12</b>	<input type="text"/>	
<b>DOWNLOAD VIDEOS</b>	<b>No, the answer is incorrect.</b>	
<b>Interaction Session</b>	<b>Score: 0</b>	
	<b>Accepted Answers:</b>	
	(Type: Range) 2.50,2.52	<b>2 points</b>
	5) The element $J_6(2, 2)$ is:	
	<input type="text"/>	
	<b>No, the answer is incorrect.</b>	
	<b>Score: 0</b>	
	<b>Accepted Answers:</b>	
	(Type: Range) -0.13,-0.12	<b>2 points</b>

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