



## COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

Koustuv Technical Campus, Plot No. 1 (A), Koustuv Square,  
Infocity Road, Patia, Bhubaneswar-751024, Odisha, India

[AFFILIATED TO BPUT, ODISHA]

[www.coeb.ac.in](http://www.coeb.ac.in)

### ADD-ON COURSE : Applied System Theory

[Programme: B.Tech, EEE/EE]

### SYLLABUS

Total Lecture Hours : 40

#### Course Objectives:

This course delves into the principles, techniques, and practical applications of system theory in various fields, including engineering, biology, economics, and more. Students will learn to analyze, model, and optimize complex systems, and apply system theory to solve real-world problems.

#### MODULE-I Introduction to System Theory

[10 Hours]

Definition and scope of system theory, Importance of systems thinking, Applications of system theory in various disciplines, Types of systems: open, closed, deterministic, stochastic, System components and interactions, System modeling techniques: block diagrams, state-space representation.

#### MODULE-II LTI System

[10 Hours]

State Transition Matrix, Solutions to LTI Systems, Solutions to LTV Systems, Equilibrium points, Linearization, Types of Linearization with Examples, Stability, Types of Stability, Lyapunov Equation

#### MODULE-III Controllability & Observability

[10 Hours]

Controllability, Reachability, Stabilizability, Tests, Controllable and Reachable Subspaces, Grammians, Controllable Decomposition, Observability, Constructibility, Detectability, Tests, Subspaces, Grammians, State Estimation, Observable Decomposition.

#### MODULE-IV Controller Design

[10 Hours]

Kalman Decomposition, Pole Placement, Controller Design, Observer Design, Duality, Minimal Realization, Basics of Optimal Control, LQR, Riccati Equation, LMIs in Control

**Course Outcomes:** After completion of the course, the students will be able to

CO1: Understand the fundamental concepts of system theory.

CO2: Apply system theory to analyze and model dynamic systems.

CO3: Use system theory tools for optimization and control.

CO4: Apply system theory to address real-world problems across different domains.

CO5: Communicate system analyses effectively through reports and presentations.

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**Evaluation Process:**

1. Attendance for the course is 75%, which is mandatory.
2. Minimum qualifying marks percentage for the course is 50.
3. Certificate will be issued after successful completion of course and assessment processes.

**Learning resources:**

**Suggested Books:**

1. Linear Algebra and its Applications by Gilbert Strang
2. Linear Systems Theory by J.H.Hespanha
3. Linear System Theory and Design by C.T.Chen
4. Introduction to Dynamic Systems by D.G. Luenberger
5. Linear Systems 1.111 by P. Antsaklis and Anthony N. Michel

**Other Sources:**

**e-Learning Resources:**

1. [https://onlinecourses.nptel.ac.in/noc23\\_ee144/preview](https://onlinecourses.nptel.ac.in/noc23_ee144/preview)

**Design and Developed by:** Prof. Gopal Krishna Mohanty & Prof. Jagatjyoti Ranjan Das

Principal

**PRINCIPAL**

College of Engineering Bhubaneswar

*K. B. Singh*

PRINCIPAL

College of Engineering Bhubaneswar

*Pn*

HOD, Electrical Engineering

HOD

Electrical Engineering

College of Engineering Bhubaneswar



# COLLEGE OF ENGINEERING BHUBANESWAR

Plot No.1 (A), CNI Complex, Patia, Bhubaneswar – 751024, Odisha, India.

[AFFILIATED TO BPUT, ODISHA]

[www.coeb.ac.in](http://www.coeb.ac.in)

## NOTICE

Department of Electrical Engineering

Add On Course 2019-2020

Ref No: COEB/EE/2019/07

Date: 02.08.2019

It is hereby informed to all the students that the Department of Electrical Engineering is going to start the following Add-on courses for Academic year 2019-2020. All the students are instructed to enroll their names for the following courses on or before 14/08/2019. The classes will be commenced from **16/08/2019**, 5.30pm to 7.30pm. You can contact the following course co-ordinators for enrolment and further queries.

Sl. No.	Name of Add-on Course	Sem	Duration in hours	Name of the course co-ordinators
1	Fundamentals of Domestic Appliances	3 <sup>rd</sup>	38	Dr. B Veera Murthy Pandian, Assistant Professor
2	Applied System Theory	5 <sup>th</sup>	40	Jagat Jyoti Ranjan Das, Assistant Professor.
3	Mastering MATLAB through guided problem solving	7 <sup>th</sup>	40	Dr. T C Manjunath, Assistant Professor

  
HOD

Electrical Engineering Department

HOD

Electrical Engineering  
College of Engineering Bhubaneswar

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**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)  
ADD-ON COURSE**

**STUDENT ENROLLMENT SHEET**


<b>Name of the Department:</b> ELECTRICAL ENGINEERING	
<b>Course Title:</b> Applied System Theory	
<b>Semester :</b> 5th	<b>Academic Year:</b> 2019-20

Student's Declaration/Undertaking

1. I do hereby undertake to participate in the above mentioned add on course.
2. I do hereby, promise to abide by the admissible rules and regulations, concerning discipline, attendance, etc. of the department, and also to follow the Code of Conduct prescribed for the students of the Institute, as in force from time to time.

Sl. No.	Registration No	Name of the Student	Signature of the Student
1	1701219022	JYOTIPRAKASH DAS	Jyoti Prakash Das
2	1701219031	ASHUTOSH MISHRA	Ashutosh Mishra
3	1701219101	SUBHAM MOHAPATRA	Subham Mohapatra
4	1701219169	PRIYE RANJAN KUMAR	Priya Ranjan Kumar
5	1701219171	RAKESH BEHERA	Rakesh Behera
6	1701219277	SUBHASHMITA SAHOO	Subhashmita Sahoo
7	1701219278	SUVAKANTA DHALASAMANTA	Suvakanta Dhalasamanta
8	1701219279	SATYABRATA AMRUT RANJAN	Satyabrata Amrut Ranjan
9	1701219281	SARTHAK KUMAR JENA	Sarthak Kumar Jena
10	1701219282	SONAM NAYAK	Sonam Nayak
11	1701219283	SUBHASHREE BEHERA	Subhashree Behera



  
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**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
 ADD ON / CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 02

Programme: **B.Tech in Electrical Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : **(5:30 to 7:30) pm**

Date & Signature of the Student

Sl. No.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date:	Date:	Date:	Date:
1	1701219022	JYOTIPRAKASH DAS	22/08/19	26/08/19	27/08/19	28/08/19
2	1701219031	ASHUTOSH MISHRA	22/08/19	26/08/19	27/08/19	28/08/19
3	1701219101	SUBHAM MOHAPATRA	22/08/19	26/08/19	27/08/19	28/08/19
4	1701219169	PRIVE RANJAN KUMAR	22/08/19	26/08/19	27/08/19	28/08/19
5	1701219171	RAKESH BEHERA	22/08/19	26/08/19	27/08/19	28/08/19
6	1701219277	SUBHASHMITA SAHOO	22/08/19	26/08/19	27/08/19	28/08/19
7	1701219278	SUVAKANITA DHALASAMANTA	22/08/19	26/08/19	27/08/19	28/08/19
8	1701219279	SATYABRATA AMRUT RANJAN	22/08/19	26/08/19	27/08/19	28/08/19
9	1701219281	SARTHAK KUMAR JENA	22/08/19	26/08/19	27/08/19	28/08/19
10	1701219282	SONAM NAVAK	22/08/19	26/08/19	27/08/19	28/08/19
11	1701219283	SUBHASHREE BEHERA	22/08/19	26/08/19	27/08/19	28/08/19

Signature of the Course Coordinator



**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
 ADD ON/CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 03

Programme: **B.Tech in Electrical Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : **5:30 to 7:30 pm**

Date & Signature of the Student

Sl. NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date:	Date:	Date:	Date:
1	1701219022	JYOTIPRAKASH DAS	29/08/19	30/08/19	04/09/19	05/09/19
2	1701219031	ASHUTOSH MISHRA	29/08/19	30/08/19	04/09/19	05/09/19
3	1701219101	SUBHAM MOHAPATRA	29/08/19	30/08/19	04/09/19	05/09/19
4	1701219169	PRIVE RANJAN KUMAR	29/08/19	30/08/19	04/09/19	05/09/19
5	1701219171	RAKESH BEHERA	29/08/19	30/08/19	04/09/19	05/09/19
6	1701219277	SUBHASHMITA SAHOO	29/08/19	30/08/19	04/09/19	05/09/19
7	1701219278	SUVAKANTA DHALASAMANTA	29/08/19	30/08/19	04/09/19	05/09/19
8	1701219279	SATYABRATA AMRUT RANJAN	29/08/19	30/08/19	04/09/19	05/09/19
9	1701219281	SARTHAK KUMAR JENA	29/08/19	30/08/19	04/09/19	05/09/19
10	1701219282	SONAM NAYAK	29/08/19	30/08/19	04/09/19	05/09/19
11	1701219283	SUBHASHREE BEHERA	29/08/19	30/08/19	04/09/19	05/09/19

Signature of the Course Coordinator



**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
 ADD ON / CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 04

Programme: **B.Tech in Electrical Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : (5:30 to 7:30) pm

Date & Signature of the Student

Sl. No.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date:	Date:	Date:	Date:
1	1701219022	JYOTIPRAKASH DAS	6/09/19	10/09/19	11/09/19	12/09/19
2	1701219031	ASHUTOSH MISHRA	6/09/19	10/09/19	11/09/19	12/09/19
3	1701219101	SUBHAM MOHAPATRA	6/09/19	10/09/19	11/09/19	12/09/19
4	1701219169	PRIVE RANJAN KUMAR	6/09/19	10/09/19	11/09/19	12/09/19
5	1701219171	RAKESH BEHERA	6/09/19	10/09/19	11/09/19	12/09/19
6	1701219277	SUBHASHMITA SAHOO	6/09/19	10/09/19	11/09/19	12/09/19
7	1701219278	SUVAKANITA DHALASAMANTA	6/09/19	10/09/19	11/09/19	12/09/19
8	1701219279	SATYABRATA AMRUT RANJAN	6/09/19	10/09/19	11/09/19	12/09/19
9	1701219281	SARTHAK KUMAR JENA	6/09/19	10/09/19	11/09/19	12/09/19
10	1701219282	SONAM NAYAK	6/09/19	10/09/19	11/09/19	12/09/19
11	1701219283	SUBHASHREE BEHERA	6/09/19	10/09/19	11/09/19	12/09/19

Signature of the Course Coordinator



**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
 ADD ON / CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 05

Programme: **B.Tech in Electrical Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : 5:30 to 7:30 pm

Sl. No.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date & Signature of the Student							
			Date:	Signature	Date:	Signature				
1	1701219022	JYOTIPRAKASH DAS	13/09/19	Jyotiprakash Das	16/09/19	Jyotiprakash Das	17/09/19	Jyotiprakash Das	18/09/19	Jyotiprakash Das
2	1701219031	ASHUTOSH MISHRA	13/09/19	Ashutosh Mishra	16/09/19	Ashutosh Mishra	17/09/19	Ashutosh Mishra	18/09/19	Ashutosh Mishra
3	1701219101	SUBHAM MOHAPATRA	13/09/19	Subham Mohapatra	16/09/19	Subham Mohapatra	17/09/19	Subham Mohapatra	18/09/19	Subham Mohapatra
4	1701219169	PRIVE RANJAN KUMAR	13/09/19	Prive Ranjan Kumar	16/09/19	Prive Ranjan Kumar	17/09/19	Prive Ranjan Kumar	18/09/19	Prive Ranjan Kumar
5	1701219171	RAKESH BEHERA	13/09/19	Rakesh Behera	16/09/19	Rakesh Behera	17/09/19	Rakesh Behera	18/09/19	Rakesh Behera
6	1701219277	SUBHASHMITA SAHOO	13/09/19	Subhasmita Sahoo	16/09/19	Subhasmita Sahoo	17/09/19	Subhasmita Sahoo	18/09/19	Subhasmita Sahoo
7	1701219278	SUVAKANITA DHALASAMANTA	13/09/19	Suvakanta Dhalasamanta	16/09/19	Suvakanta Dhalasamanta	17/09/19	Suvakanta Dhalasamanta	18/09/19	Suvakanta Dhalasamanta
8	1701219279	SATYABRATA AMRUT RANJAN	13/09/19	Satyabrata Amrut Ranjan	16/09/19	Satyabrata Amrut Ranjan	17/09/19	Satyabrata Amrut Ranjan	18/09/19	Satyabrata Amrut Ranjan
9	1701219281	SARTHAK KUMAR JENA	13/09/19	Sarthak Kumar Jena	16/09/19	Sarthak Kumar Jena	17/09/19	Sarthak Kumar Jena	18/09/19	Sarthak Kumar Jena
10	1701219282	SONAM NAYAK	13/09/19	Sonom Nayak	16/09/19	Sonom Nayak	17/09/19	Sonom Nayak	18/09/19	Sonom Nayak
11	1701219283	SUBHASHREE BEHERA	13/09/19	Subhashree Behera	16/09/19	Subhashree Behera	17/09/19	Subhashree Behera	18/09/19	Subhashree Behera

Signature of the Course Coordinator





**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)  
DEPARTMENT OF ELECTRICAL ENGINEERING  
ADD ON / CERTIFICATE COURSE**

**STUDENT ATTENDANCE**

Sheet No. 01

Programme: **B.Tech in Electrical Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**


Course Code (if any):

Duration : **(5:30 to 7:30) pm**

Date & Signature of the Student

Sl. No.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date: 16/08/19	Date: 19/08/19	Date: 20/08/19	Date: 21/08/19
1	1701219022	JYOTIPRAKASH DAS	Jyotiprakash Das	Jyotiprakash Das	Jyotiprakash Das	Jyotiprakash Das
2	1701219031	ASHUTOSH MISHRA	Ashutosh Mishra	Ashutosh Mishra	Ashutosh Mishra	Ashutosh Mishra
3	1701219101	SUBHAM MOHAPATRA	Subham Mohapatra	Subham Mohapatra	Subham Mohapatra	Subham Mohapatra
4	1701219169	PRIVE RANJAN KUMAR	Prive Ranjan Kumar	Prive Ranjan Kumar	Prive Ranjan Kumar	Prive Ranjan Kumar
5	1701219171	RAKESH BEHERA	Rakesh Behera	Rakesh Behera	Rakesh Behera	Rakesh Behera
6	1701219277	SUBHASHMITA SAHOO	Subhasmita Sahoo	Subhasmita Sahoo	Subhasmita Sahoo	Subhasmita Sahoo
7	1701219278	SUVAKANTA DHALASAMANTA	Suvakanta Dhalasamanta	Suvakanta Dhalasamanta	Suvakanta Dhalasamanta	Suvakanta Dhalasamanta
8	1701219279	SATYABRATA AMRUT RANJAN	Satyabrata A. Ranjan	Abs	Satyabrata A. Ranjan	Satyabrata A. Ranjan
9	1701219281	SARTHAK KUMAR JENA	Sarthak Kumar Jena	Sarthak Kumar Jena	Sarthak Kumar Jena	Sarthak Kumar Jena
10	1701219282	SONAM NAYAK	Sonam Nayak	Sonam Nayak	Sonam Nayak	Sonam Nayak
11	1701219283	SUBHASHREE BEHERA	Subhashree Behera	Subhashree Behera	Subhashree Behera	Subhashree Behera

Signature of the Course Coordinator

  
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**COLLEGE OF ENGINEERING BHUBANESWAR**

PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



# *Certificate of Completion*

This is to certify that Mr./Ms. JYOTIPRAKASH DAS, student of the Department

of Electrical Engg. semester Fifth bearing registration number 1701219022

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.

TRUE COPY

Course-Coordinator

Principal

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**COLLEGE OF ENGINEERING BHUBANESWAR**  
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# *Certificate of Completion*

This is to certify that Mr./Ms. ASHUTOSH MISHRA, student of the Department  
of Electrical Engg. semester Fifth bearing registration number 1701219031  
has successfully completed the ADD-ON Course titled Applied System Theory  
conducted at College of Engineering Bhubaneswar in the academic year 2019-20.

**TRUE COPY**

Course-Coordinator

Principal

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# *Certificate of Completion*

This is to certify that Mr./Ms. SUBHAM MOHAPATRA, student of the Department

of Electrical Engg. semester Fifth bearing registration number 1701219101

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.

TRUE COPY

Course-Coordinator

Principal

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# *Certificate of Completion*

This is to certify that Mr./Ms. PRIYE RANJAN KUMAR, student of the Department

of Electrical Engg. semester Fifth bearing registration number 1701219169

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.

**TRUE COPY**

Course-Coordinator

Principal

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PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



# *Certificate of Completion*

This is to certify that Mr./Ms. RAKESH BEHERA, student of the Department

of Electrical Engg. semester Fifth bearing registration number 1701219171

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.

**TRUE COPY.**

Course-Coordinator

Principal

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**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)  
ADD-ON COURSE**

**STUDENT ENROLLMENT SHEET**


<b>Name of the Department:</b> ELECTRICAL AND ELECTRONICS ENGINEERING	
<b>Course Title:</b> Applied System Theory	
<b>Semester :</b> 5th	<b>Academic Year:</b> 2019-20

Student's Declaration/Undertaking

1. I do hereby undertake to participate in the above mentioned add on course.
2. I do hereby, promise to abide by the admissible rules and regulations, concerning discipline, attendance, etc. of the department, and also to follow the Code of Conduct prescribed for the students of the Institute, as in force from time to time.

Sl. No.	Registration N	Name of the Student	Signature of the Student
1	1701219071	SHIB SHANKAR SHAW	Shib Shankar Shaw
2	1701219165	ASHISH KUMAR PODDAR	Ashish Kumar Poddar
3	1701219166	MEGHNATH SOREN	Meghnath Soren
4	1701219167	VISHAL KUMAR SINGH	Vishal Kumar Singh
5	1701219271	JAGANNATH PRASAD SHA	Jagannath Prasad Sha
6	1701219272	SAI PRAVAT SAMAL	Sai Pravat Samal
7	1701219273	SUJIT KUMAR SAMANTARAY	Sujit Kumar Samantaray
8	1701219274	AMARJIT BEHERA	Amarjit Behera
9	1701219276	MANORAMA SAHOO	Manorama Sahoo



  
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**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

ADD ON / CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 01

Programme: **B.Tech in Electrical and Electronics Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : (5.30 - 7.30) Pm

Date & Signature of the Student

Sl. No.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date:	Date:	Date:	Date:
1	1701219071	SHIB SHANKAR SHAW	16/08/19	19/08/19	20/08/19	21/08/19
2	1701219165	ASHISH KUMAR PODDAR	16/08/19	19/08/19	20/08/19	21/08/19
3	1701219166	MEGHNATH SOREN	16/08/19	19/08/19	20/08/19	21/08/19
4	1701219167	VISHAL KUMAR SINGH	16/08/19	19/08/19	20/08/19	21/08/19
5	1701219271	JAGANNATH PRASAD SHA	16/08/19	19/08/19	20/08/19	21/08/19
6	1701219272	SAI PRAVAT SAMAL	16/08/19	19/08/19	20/08/19	21/08/19
7	1701219273	SUJIT KUMAR SAMANTARAY	16/08/19	19/08/19	20/08/19	21/08/19
8	1701219274	AMARJIT BEHERA	16/08/19	19/08/19	20/08/19	21/08/19
9	1701219276	MANORAMA SAHOO	16/08/19	19/08/19	20/08/19	21/08/19
		Signature of the Course Coordinator				

  
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COLLEGE OF ENGINEERING BHUBANESWAR (COEB)  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADD ON / CERTIFICATE COURSE

STUDENT ATTENDANCE

Sheet No. 02

Programme: B.Tech in Electrical and Electronics Engineering

Semester: 5th

Academic Year: 2019-20


Name of the Course: Applied System Theory

Course Code (if any):

Duration : (5.30 - 7.30) Pm

Date & Signature of the Student

Sl. NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date:	Date:	Date:	Date:
1	1701219071	SHIB SHANKAR SHAW	22/08/19	26/08/19	27/08/19	28/08/19
2	1701219165	ASHISH KUMAR PODDAR	Ashishkumardelar	Ashishkumardelar	Ashishkumardelar	Ashishkumardelar
3	1701219166	MEGHNATH SOREN	Meghnath Soren	Meghnath Soren	Meghnath Soren	Meghnath Soren
4	1701219167	VISHAL KUMAR SINGH	Vishal Kumar Singh	Vishal Kumar Singh	Vishal Kumar Singh	Vishal Kumar Singh
5	1701219271	JAGANNATH PRASAD SHA	Jaganmuth Prasad Sha	Jaganmuth Prasad Sha	Jaganmuth Prasad Sha	Jaganmuth Prasad Sha
6	1701219272	SAI PRAVAT SAMAL	Sai Pravat Samal	Sai Pravat Samal	Sai Pravat Samal	Sai Pravat Samal
7	1701219273	SUJIT KUMAR SAMANTARAY	Sudit K. Samantaray	Sudit K. Samantaray	Abs	Abs
8	1701219274	AMARJIT BEHERA	Abs	Amarjit Behera	Amarjit Behera	Amarjit Behera
9	1701219276	MANORAMA SAHOO	Manamaramahoo	Manamaramahoo	Manamaramahoo	Manamaramahoo
Signature of the Course Coordinator						

  
PRINCIPAL  
College of Engineering Bhubaneswar



**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

ADD ON / CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 03

Programme: **B.Tech in Electrical and Electronics Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : (5.30 - 7.30) Pm

Date & Signature of the Student

Sl. NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date:	Date:	Date:	Date:
1	1701219071	SHIB SHANKAR SHAW	Shib Shankar Shaw 29/08/19	Shib Shankar Shaw 30/08/19	Shib Shankar Shaw 04/09/19	Shib Shankar Shaw 05/09/19
2	1701219165	ASHISH KUMAR PODDAR	Ashish Kumar Poddar 29/08/19	Ashish Kumar Poddar 30/08/19	Ashish Kumar Poddar 04/09/19	Ashish Kumar Poddar 05/09/19
3	1701219166	MEGHNATH SOREN	Meghnath Soren 29/08/19	Meghnath Soren 30/08/19	Meghnath Soren 04/09/19	Meghnath Soren 05/09/19
4	1701219167	VISHAL KUMAR SINGH	Vishal Ku. Singh 29/08/19	Vishal Ku. Singh 30/08/19	Vishal Ku. Singh 04/09/19	Vishal Ku. Singh 05/09/19
5	1701219271	JAGANNATH PRASAD SHA	Jagannath Prasad Sha 29/08/19	Jagannath Prasad Sha 30/08/19	Jagannath Prasad Sha 04/09/19	Jagannath Prasad Sha 05/09/19
6	1701219272	SAI PRAVAT SAMAL	Sai Pravat Samal 29/08/19	Sai Pravat Samal 30/08/19	Sai Pravat Samal 04/09/19	Sai Pravat Samal 05/09/19
7	1701219273	SUJIT KUMAR SAMANTARAY	Sujit K. Samantaray 29/08/19	Sujit K. Samantaray 30/08/19	Sujit K. Samantaray 04/09/19	Sujit K. Samantaray 05/09/19
8	1701219274	AMARJIT BEHERA	Amarjit Behera 29/08/19	Amarjit Behera 30/08/19	Amarjit Behera 04/09/19	Amarjit Behera 05/09/19
9	1701219276	MANORAMA SAHOO	Manorama Sahoo 29/08/19	Manorama Sahoo 30/08/19	Manorama Sahoo 04/09/19	Manorama Sahoo 05/09/19
Signature of the Course Coordinator						

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**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

ADD ON/ CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 019

Programme: **B.Tech in Electrical and Electronics Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : (5.30 - 7.30) Pm

Sl. NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date & Signature of the Student							
			Date:	Signature	Date:	Signature				
1	1701219071	SHIB SHANKAR SHAW	06/09/19	<i>Shib Shankar Shaw</i>	10/09/19	<i>Shib Shankar Shaw</i>	11/09/19	<i>Shib Shankar Shaw</i>	12/09/19	<i>Shib Shankar Shaw</i>
2	1701219165	ASHISH KUMAR PODDAR	06/09/19	<i>Ashishkumardar</i>	10/09/19	<i>Ashishkumardar</i>	11/09/19	<i>Ashishkumardar</i>	12/09/19	<i>Ashishkumardar</i>
3	1701219166	MEGHNATH SOREN	06/09/19	<i>Meghnath Soren</i>	10/09/19	<i>Meghnath Soren</i>	11/09/19	<i>Meghnath Soren</i>	12/09/19	<i>Meghnath Soren</i>
4	1701219167	VISHAL KUMAR SINGH	06/09/19	<i>Vishal Ku. Singh</i>	10/09/19	<i>Vishal Ku. Singh</i>	11/09/19	<i>Vishal Ku. Singh</i>	12/09/19	<i>Vishal Ku. Singh</i>
5	1701219271	JAGANNATH PRASAD SHA	06/09/19	<i>Jagannath Prasad Sha</i>	10/09/19	<i>Jagannath Prasad Sha</i>	11/09/19	<i>Jagannath Prasad Sha</i>	12/09/19	<i>Jagannath Prasad Sha</i>
6	1701219272	SAI PRAVAT SAMAL	06/09/19	<i>Sai Pravat Samal</i>	10/09/19	<i>Sai Pravat Samal</i>	11/09/19	<i>Sai Pravat Samal</i>	12/09/19	<i>Sai Pravat Samal</i>
7	1701219273	SUJIT KUMAR SAMANTARAY	06/09/19	<i>Sujit K. Samantaray</i>	10/09/19	<i>Sujit K. Samantaray</i>	11/09/19	<i>Sujit K. Samantaray</i>	12/09/19	<i>Sujit K. Samantaray</i>
8	1701219274	AMARJIT BEHERA	06/09/19	<i>Amarjit Behera</i>	10/09/19	<i>Amarjit Behera</i>	11/09/19	<i>Amarjit Behera</i>	12/09/19	<i>Amarjit Behera</i>
9	1701219276	MANORAMA SAHOO	06/09/19	<i>Manoramasahee</i>	10/09/19	<i>Manoramasahee</i>	11/09/19	<i>Manoramasahee</i>	12/09/19	<i>Manoramasahee</i>
Signature of the Course Coordinator			<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

*[Signature]*  
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**COLLEGE OF ENGINEERING BHUBANESWAR (COEB)**  
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

ADD ON / CERTIFICATE COURSE

**STUDENT ATTENDANCE**

Sheet No. 05

Programme: **B.Tech in Electrical and Electronics Engineering**

Semester: **5th**

Academic Year: **2019-20**

Name of the Course: **Applied System Theory**

Course Code (if any):

Duration : (5.30 - 7.30) P<sub>m</sub>

Date & Signature of the Student

SL NO.	Reg. No./ Enrollment No.	NAME OF THE STUDENT	Date:	Date:	Date:	Date:
1	1701219071	SHIB SHANKAR SHAW	13/09/19	16/09/19	17/09/19	18/09/19
2	1701219165	ASHISH KUMAR PODDAR	Ashishkumarpoddar	Ashishkumarpoddar	Ashishkumarpoddar	Ashishkumarpoddar
3	1701219166	MEGHNATH SOREN	Meghnath Soren	Meghnath Soren	Meghnath Soren	Meghnath Soren
4	1701219167	VISHAL KUMAR SINGH	Vishal Ku. Singh	Vishal Ku. Singh	Vishal Ku. Singh	Vishal Ku. Singh
5	1701219271	JAGANNATH PRASAD SHA	Jagannath Prasad Sha	Jagannath Prasad Sha	Jagannath Prasad Sha	Jagannath Prasad Sha
6	1701219272	SAI PRAVAT SAMAL	Sai Pravat Samal	Sai Pravat Samal	Sai Pravat Samal	Sai Pravat Samal
7	1701219273	SUJIT KUMAR SAMANTARAY	Sujit K. Samantaray	Sujit K. Samantaray	Sujit K. Samantaray	Sujit K. Samantaray
8	1701219274	AMARJIT BEHERA	Amarjit Behera	Amarjit Behera	Amarjit Behera	Amarjit Behera
9	1701219276	MANORAMA SAHOO	Manoramasahoo	Manoramasahoo	Manoramasahoo	Manoramasahoo
Signature of the Course Coordinator						

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**COLLEGE OF ENGINEERING BHUBANESWAR**

PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



# *Certificate of Completion*

This is to certify that Mr./Ms. SHIB SHANKAR SHAW, student of the Department

of Electrical & Electronics Engg. semester Fifth bearing registration number 1701219071

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.



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**TRUE COPY**



Course-Coordinator



Principal



**COLLEGE OF ENGINEERING BHUBANESWAR**

PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



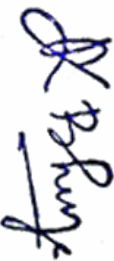
# *Certificate of Completion*

This is to certify that Mr./Ms. ASHUTOSH PRAKASH, student of the Department

of Electrical & Electronics Engg. semester Seventh bearing registration number 1601219291

has successfully completed the ADD-ON Course titled Mastering MATLAB through guided problem solving

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.



PRINCIPAL  
College of Engineering Bhubaneswar

**TRUE COPY**



Course-Coordinator



Principal



**COLLEGE OF ENGINEERING BHUBANESWAR**

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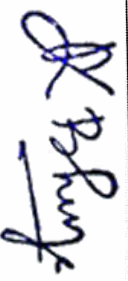
# *Certificate of Completion*

This is to certify that Mr./Ms. ASHISH KUMAR PODDAR, student of the Department

of Electrical & Electronics Engg. semester Fifth bearing registration number 1701219165

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.

  
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Course-Coordinator



Principal



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# *Certificate of Completion*

This is to certify that Mr./Ms. MEGHNATH SOREN, student of the Department

of Electrical & Electronics Engg. semester Fifth bearing registration number 1701219166

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20

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Course-Coordinator

Principal





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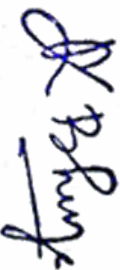
# *Certificate of Completion*

This is to certify that Mr./Ms. VISHAL KUMAR SINGH, student of the Department

of Electrical & Electronics Engg. semester Fifth bearing registration number 1701219167

has successfully completed the ADD-ON Course titled Applied System Theory

conducted at College of Engineering Bhubaneswar in the academic year 2019-20.

  
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Course-Coordinator



Principal