



**BIRLA INSTITUTE OF TECHNOLOGY**  
**MESRA, RANCHI – 835215, INDIA**  
**Course Structure Session - 2016**  
**UNDERGRADUATE (Full Time)**

Program : **BACHELOR OF ENGINEERING**  
Branch : **B.E. ELECTRONICS & COMM. ENGG**

Semester : 1

Total Credits: 29

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
CH1401	ENGINEERING CHEMISTRY	3.00
EE2201	PRINCIPLES OF ELECTRICAL ENGG	4.00
HU1101	TECHNICAL ENGLISH	3.00
MA1201	ENGINEERING MATHEMATICS	4.00
PH1201	PHYSICS	4.00
CS1302	FUNDAMENTAL OF UNIX & C PROGRAMMING	3.00
ME1202	ENGINEERING GRAPHICS	3.00
PE1202	WORKSHOP PRACTICE	2.00
PH1202	PHYSICS LAB	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA1002	NCC	1.00
GA1004	NSS	1.00
GA1006	PT & GAMES	1.00
GA1008	CREATIVE ARTS	1.00



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Semester : 2

Total Credits: 30

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
AM1201	ENGINEERING MECHANICS	4.00
CH2203	ENVIRONMENTAL SCIENCE	3.00
CS2301	FUNDAMENTAL OF DATA STRUCTURE	4.00
EC2001	PRINCIPLES OF ELECTRONICS ENGINEERING	3.00
MA2201	ADVANCE ENGINEERING MATHEMATICS	4.00
ME2001	PRINCIPLES OF MECHANICAL ENGINEERING	3.00
CH1402	CHEMISTRY LAB	2.00
CS2302	DATA STRUCTURE LAB	2.00
EC2002	BASIC ELECTRONICS ENGINEERING LAB	2.00
EE3202	BASIC ELECTRICAL ENGINEERING LAB	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA2002	NCC	1.00
GA2004	NSS	1.00
GA2006	PT & GAMES	1.00
GA2008	CREATIVE ARTS	1.00



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Semester : 3

Total Credits: 24

Subject Code	Subject Title	Credit
EC3201	DIGITAL ELECTRONICS	4.00
EC3203	MODERN INSTRUMENTS AND MEASUREMENT	3.00
EC3205	SEMICONDUCTOR DEVICES	3.00
EE3205	NETWORK THEORY	4.00
EC3202	DIGITAL ELECTRONICS LAB	2.00
EC3204	MODERN INSTRUMENTS AND MEASUREMENT LAB	2.00
AM2202	ENGINEERING MECHANICS LAB	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA3002	NCC	1.00
GA3004	NSS	1.00
GA3006	PT & GAMES	1.00
GA3008	CREATIVE ARTS	1.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY ONE )</b>	
BT3021	BIOLOGICAL SCIENCE	3.00



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Semester : 4

Total Credits: 23

Subject Code	Subject Title	Credit
EC4201	VLSI DESIGN	3.00
EC4203	ANALOG COMMUNICATION SYSTEM	4.00
EC4205	MICROPROCESSOR AND MICROCONTROLLER	3.00
EC4207	ELECTROMAGNETIC THEORY	3.00
EC4202	VLSI DESIGN LAB	2.00
EC4204	ANALOG COMMUNICATION LAB	2.00
EC4206	MICROPROCESSOR APPLICATION LAB	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA4002	NCC	1.00
GA4004	NSS	1.00
GA4006	PT & GAMES	1.00
GA4008	CREATIVE ARTS	1.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY ONE )</b>	
HU4001	FRENCH	3.00
HU4003	GERMAN	3.00



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Semester : 5

Total Credits: 22

Subject Code	Subject Title	Credit
EC5201	DIGITAL COMMUNICATION SYSTEM	3.00
EC5203	MICROWAVE ENGINEERING	3.00
EC5205	DATA COMMUNICATION	3.00
EE4207	DIGITAL SIGNAL PROCESSING	4.00
EC5202	DIGITAL COMMUNICATION LAB	2.00
EC5204	MICROWAVE LAB	2.00
EE4208	DIGITAL SIGNAL PROCESSING LAB	2.00
<b>Breadth Paper ( CHOICE FOR ONLY ONE )</b>		
AR3039	ART AND CULTURE	3.00
MSH1113	ENVIRONMENTAL PSYCHOLOGY	3.00
MSH1131	PRINCIPLES OF MANAGEMENT	3.00
PE5009	INDUSTRIAL ORGANIZATION AND MANAGEMENT	3.00
MSH1125	ORGANISATION BEHAVIOUR	3.00
PE5011	PROJECT ENGINEERING	3.00



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Semester : 6

Total Credits: 21

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
EC6201	INTELLIGENT INSTRUMENTATION	3.00
EC6203	FIBER OPTICS COMMUNICATION SYSTEM	3.00
EC6205	COMPUTER NETWORKING	3.00
EE6201	CONTROL THEORY	3.00
EC6202	INDUSTRIAL INSTRUMENTATION LAB	2.00
EC6204	FIBER OPTICS COMMUNICATION LAB	2.00
EC6206	WIRELESS COMMUNICATION & NETWORKING LAB	2.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY ONE )</b>	
MSH1115	HUMAN RESOURCE MANAGEMENT	3.00
MSH1121	MARKETING MANAGEMENT	3.00
MSH1123	OPERATION RESEARCH	3.00
MSH1137	ECONOMICS	3.00
PE6009	ENGINEERING ECONOMY	3.00



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Semester : 7

Total Credits: 24

Subject Code	Subject Title	Credit
EC7201	MOBILE AND CELLULAR COMMUNICATION	3.00
EC7203	ANTENNAS AND PROPAGATION FOR WIRELESS COMMUNICATION	3.00
EC7206	PROJECT	4.00
<b>Breadth Paper</b>	<b>( CHOICE FOR ONLY ONE )</b>	
MSH1117	FINANCIAL MANAGEMENT	3.00
MSH1109	ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT	3.00
MSH1103	BUSINESS ETHICS	3.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY ONE )</b>	
MEC2011	DIGITAL IMAGE PROCESSING TECHNIQUES	3.00
MEC1047	SENSORS AND TRANSDUCERS	3.00
MEC1019	MICROELECTRONIC DEV & CIRCUITS	3.00
<b>Elective - 2</b>	<b>( CHOICE FOR ONLY ONE )</b>	
EC7207	SATELLITE COMMUNICATION SYSTEM	3.00
MEC1125	INFORMATION THEORY AND CODING	3.00
MEC2019	MICRO-ELECTRO-MECHANICAL-SYSTEMS	3.00
<b>Elective - 3</b>	<b>( CHOICE FOR ONLY ONE )</b>	
EC7202	ADVANCED COMM. LAB	2.00
EC7204	EMBEDDED SYSTEM LAB	2.00
<b>Free Elective</b>	<b>( CHOICE FOR ONLY ONE )</b>	
MEC2067	VHDL & VERILOG	3.00
MEC2137	WIRELESS NETWORKS	3.00
MEC2163	SPEECH PROCESSING & RECOGNITION	3.00



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Semester : 8

Total Credits: 9

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
EC8202	PROJECT & COMPRÉHENSIVE VIVA	6.00