THRUST AREAS FOR CONDUCT OF FDPS (Category Wise)

For UG/PG/Research Institution

I. *Engineering & Management*

1. Advanced Materials, Rare-earth & Critical Minerals
2. Semiconductors
3. Space and Defense
4. Blue Economy
5. Energy, Sustainability & Climate Change
6. Advanced Computing (Supercomputing, AI, Quantum Computing)
7. Next Gen Communications
8. Smart Cities & Mobility
9. Aggrotech & Food processing
10. Health Care & Med-Tech
11. Disaster Management & Resilient Infrastructure
12. Manufacturing & Industry 4.0
13. High Performance Computing

Sub-Thrust Areas under Engineering and Management

1. 3D Printing and Design
2. 5th Generation Mobile Networks
3. 6th Generation Mobile Networks
4. Active & Passive Devices in 5G/6G
5. Additive Manufacturing in Medical Application
6. Advanced Computing (Supercomputing, Quantum Computing)
7. Advanced Functional Materials
8. Advanced Materials
9. Alternate Fuels
10. Antenna & RF Designs
11. Aquaculture and Mariculture
12. Artificial Intelligence & Applications
13. Augmented Reality (AR)/ Virtual Reality (VR)
14. Automation in Civil Engineering
15. Autonomous Vehicles
16. Automotive
17. Behavioral Finance
18. Bio Informatics/Computational Biology
19. Bio Similar Technology
20. Bioremediation
21. Biotechnology
22. Block Chain Technology
23. Blue Carbon Sequestration (e.g., mangroves, seagrasses)
24. Business on Wheels
25. Cellular Agriculture
26. Circular Economy
27. Clean Energy Materials
28. Climate Sciences
29. Cloud Technology
30. Coastal and Marine Tourism
31. Coastal; Offshore Engineering
32. Cognitive Sensor Network
33. Concrete Technology
34. Control Systems; Sensors Technology
35. Cyber Physical System
36. Cyber Security
37. Data Sciences
38. Design Thinking & Innovation
39. Digital Communication & Marketing
40. Digital Currency
41. Digital Forensics
42. Digital Holography & 3D Imaging
43. Digital Manufacturing Technology
44. Digital Marketing
45. Digital Twin
46. Drug Engineering
47. Earthquake Engineering
48. Electric Vehicles & Hydrogen Fuel Cell Vehicles
49. Energy Engineering
50. Energy Storage

51. Engineering Law
52. Engineering Management
53. Environmental Geotechnology
54. Entrepreneurship & Start-up Ecosystems
55. Ethical Hacking
56. Evolutionary Computing
57. Fisheries Management and Sustainable Fishing Practices
58. Financial Modelling
59. Flexible & Transparent Electronics
60. Fog Computing
61. Gamification
62. Genome Engineering & Technology
63. Geotechnical Earthquake Engineering
64. Geographic Information System & Remote Sensing
65. Green Technology
66. Ground Improvement Techniques
67. Heritage Management
68. Human-Centered Computing
69. Immersive Virtual Reality
70. Implantable Devices
71. Industry 4.0/5.0
72. Infrastructure Engineering
73. Innovation Management
74. Intellectual Property Rights
75. Internet of Things (IoT)
76. Lab on Chip
77. Large Language Model
78. Lean Construction Technology
79. Life Skill Management
80. Low-Cost Desalination
81. Machine Learning
82. Machining & Micro Machining
83. Magnetic Levitation
84. Management Information System
85. Marine Biotechnology
86. Marine Pollution Control and Remediation
87. Marine Spatial Planning
88. Mechatronics
89. Micro/Smart Grids
90. Microelectronics
91. Mining and Data Analytics
92. Molecular Manufacturing
93. Nanotechnology, Materials & Science
94. Next Generation Communications
95. Novel Materials
96. Numerical Modelling & Soil-Structure Interaction
97. Nutrition Technology
98. Ocean Exploration and Mapping
99. Ocean Renewable Energy
100. Ontogenetics
101. Operations Management
102. Optical Communication
103. Optoelectronics and Photonics
104. Organ Printing Technology
105. Organizational Behavior
106. Precision Health Technology
107. Precision Manufacturing
108. Professional Ethics
109. Project Management
110. Quantum Computing & Technology
111. Real-Time Translation
112. Risk Management
113. Robotic Process Automation
114. Robotics
115. Satellite Navigation System
116. Sensor Network for Agriculture Management
117. Shipbuilding and Ship Repair
118. Simulation Techniques
119. Six Sigma Quality Management
120. Smart Cities
121. Social Enterprise Management
122. Speech Signal Processing
123. Strategic Civil Infrastructure Planning
124. Strategic Planning
125. Supply Chain Management & Resilience
126. Sustainability Engineering
127. Sustainable Construction Technology
128. Sustainable Development Goals
129. Synthetic Biology
130. Systems Engineering
131. Talent Management
132. Technology Management
133. Telemedicine & Healthcare Technology

134. Underground Space Utilization
135. Waste Management Technology & Applications
136. Waterways Transport Engineering
137. Wearable Devices
138. Zero Trust Technology

II. *Applied Arts & Craft*

1. Sculpture
2. Animation
3. Ceramics
4. Metal Craft
5. Photography
6. Visual Communication
7. Communication Design
8. Illustration
9. Painting
10. Mural

III. *Design & Media*

1. Animation Film Design
2. Apparel Design
3. Ceramic; Glass Design
4. Design for Retail Experience
5. Digital Game Design
6. Film and Video Communication
7. Furniture and Interior Design
8. Graphic Design
9. Information Design
10. Interaction Design
11. Lifestyle Accessory Design
12. New Media Design
13. Photography Design
14. Product Design
15. Textile Design
16. Toy; Game Design
17. Transportation; Automobile Design
18. Universal Design
19. Fashion Communication
20. Design Thinking

IV. *Hotel Management & Catering Technology*

1. Kitchen: Food production, nutrition and dietetics, safety & hygiene & equipment
2. Cooking: methods, cuisines & seasons
3. IT for Hotel Industry
4. Hotel costing and Management Accounting
5. Hospitality: rooms, front office, bar & beverage management, laundry, facility planning, housekeeping, cleaning equipment and chemicals
6. Depreciation reserves and provisions
7. Travel and Tourism Management
8. Catering: Planning and Management
9. Managerial economics
10. Tourism, marketing & sales

For Polytechnics

1. Artificial Intelligence
2. Internet of Things (IoT)
3. Block chain
4. Machine Learning
5. Robotics
6. Data Sciences
7. Cyber Security
8. 3D Printing and Design
9. Drones
10. Industry 4.0/5.0
11. 6th Generation Mobile Networks
12. Lab on Chip
13. Cloud Technology
14. Digital Holography & 3D Imaging
15. Advanced Materials, Rare-earth & Critical Minerals
16. Semiconductors

17. Energy, Sustainability & Climate Change
18. Advanced Computing (Supercomputing, Quantum Computing)
19. Next Gen Communications
20. Smart Cities & Mobility
21. Disaster Management & Resilient Infrastructure
22. Systems Engineering
23. Sustainability Engineering
24. Energy Engineering
25. Green Technology
26. Strategic Civil Infrastructure
27. Coastal; Offshore Engineering
28. Waste Management Technology
29. GIS; Remote Sensing
30. Climate Sciences
31. Mining; Mineral Processing
32. Underground Space Utilization
33. Bio Similar Technology
34. Genome Engineering; Technology
35. Precision Health Technology
36. Control Systems; Sensors Technology
37. Infrastructure Engineering
38. Environmental Geo-technology
39. Earthquake Engineering
40. Waterways Transport Engineering
41. Lean Construction Technology
42. Sensors Technology
43. Electric Vehicles
44. Energy Storage
45. Magnetic Levitation
46. Low-cost desalination
47. Wearable Devices
48. Gamification
49. Telemedicine
50. Molecular Manufacturing
51. Alternate Fuels
52. Real Time Translation
53. Cloud Technology
54. Digital Holography & 3D Imaging
55. Human Centre Computing
56. Design Thinking
57. Mining and Data analytics
58. Fog Computing
59. Digital Forensics
60. Digital Currency
61. Machining & Micro Machining Processor
62. Simulation technique
63. Digital Manufacturing technology
64. Precision manufacturing
65. Robotic Process automation
66. Sustainable construction technology
67. Automation in civil engineering
68. Ground Improvement Techniques
69. Numerical Modelling & soil structure interaction
70. Geotechnical earthquake Eng.
71. Satellite Navigation system
72. Speech signal processing
73. Micro electronics
74. Optical communication
75. Cognitive Sensor Network
76. Nanotechnology, materials & science
77. Sensor network for agriculture management
78. Clean Eng. Materials

For Newly added BBA institutions

1. Aquaculture and Mariculture
2. Behavioral Finance
3. Blue Carbon Sequestration (e.g., mangroves, seagrasses)
4. Business on Wheels
5. Circular Economy
6. Coastal and Marine Tourism
7. Design Thinking and Innovation
8. Digital Currency
9. Digital Marketing
10. Entrepreneurship & Start-up Ecosystems
11. Engineering Management
12. Financial Modelling
13. Fisheries Management and Sustainable Fishing Practices
14. Gamification
15. Heritage Management
16. Innovation Management
17. Intellectual Property Rights
18. Management Information System
19. Mining and Data Analytics
20. Operations Management
21. Organizational Behavior
22. Professional Ethics
23. Project Management
24. Risk Management
25. Shipbuilding and Ship Repair Industry
26. Six Sigma in Quality Management
27. Social Enterprise Management
28. Strategic Planning
29. Supply Chain Management and Resilience
30. Talent Management

Newly added BCA Institutions

1. Advanced Computing (Supercomputing, Quantum Computing)
2. Artificial Intelligence and Applications
3. Augmented Reality (AR)/Virtual Reality (VR)
4. Block chain Technology and Applications
5. Cloud Technology
6. Cyber Security
7. Data Mining and Analytics
8. Data Sciences
9. Design Thinking and Innovation
10. Digital Currency
11. Digital Forensics
12. Digital Holography & 3D Imaging
13. Digital Manufacturing Technology
14. Fog Computing
15. Gamification
16. Human Centre Computing
17. Immersive Virtual Reality
18. Intellectual Property Rights
19. Internet of Things (IoT)
20. Life Skill Management
21. Machining & Micro Machining Processor
22. Professional Ethics
23. Robotics
24. Simulation technique