MAJOR BRANCHES OF ENGINEERING

Electrical engineering

a) **Computer engineering**
   i) Software engineering
   ii) Hardware engineering
   iii) Network engineering
b) **Electronic engineering**
   i) Control engineering
   ii) Telecommunications
   iii) Digital electronics systems
c) **Power engineering**
d) **Optical engineering**

Mechanical engineering

a) **Acoustical engineering**
b) **Vehicle engineering**
   i) Aerospace engineering
   ii) Marine engineering
   iii) Naval architecture
   iv) Automotive engineering
c) **Manufacturing engineering**
d) **Power plant engineering**
e) **Energy engineering**
f) **Optomechanical engineering**
g) **Thermal engineering**
h) **Sports engineering**

Chemical engineering

a) **Materials engineering**
   i) Metallurgical engineering
   ii) Ceramic engineering
   iii) Polymer engineering
   iv) Crystal engineering
   v) Biomaterials
b) **Molecular engineering**
c) **Biomolecular engineering**
   i) Genetic engineering
   ii) biochemical engineering
d) **Process engineering**
   i) Textile engineering
   ii) Plastics engineering
   iii) Paper engineering
   iv) Petroleum refinery engineering
e) **Corrosion engineering**

Civil engineering

a) **Structural engineering**
   i) Architectural engineering
   ii) Wind engineering
   iii) Earthquake engineering
   iv) Ocean engineering
b) **Environmental engineering**
   i) Ecological engineering
   ii) Municipal or urban engineering
   iii) Fire protection engineering
   iv) Sanitary engineering
   v) Wastewater engineering
c) **Geotechnical engineering**
   i) Mining engineering
   ii) Foundation (engineering)
d) **Transport engineering**
   i) Highway engineering
   ii) Railway systems engineering
   iii) Traffic engineering
e) **Water resources engineering**
   i) River engineering
   ii) Groundwater engineering
   iii) Coastal engineering
   iv) Hydraulic engineering

INTERDISCIPLINARY BRANCHES OF ENGINEERING

Agricultural engineering

a) Ecological engineering
b) Aquaculture engineering
c) Food engineering
d) Forest engineering
e) Natural resources engineering
f) Biomechanical engineering
g) Bioprocess engineering
h) Health and safety engineering

Applied engineering

a) Automation/robotics
b) Computer-aided drawing and design (CADD)
c) Applied Construction
d) Applied Electronics
e) Applied Graphics
f) Nanotechnology

1) Biomedical engineering

a) Bioinstrumentation
b) Bioinformatics
c) Biomechanics
d) Biomaterial
e) Biomedical optics
f) Biotechnology
g) Clinical engineering
h) Neural engineering
i) Pharmaceutical engineering
j) Rehabilitation engineering
k) Tissue engineering

1) Biological engineering

a) Biochemical engineering
b) Biomedical engineering
c) Cellular engineering
d) Genetic engineering,
e) Molecular engineering
f) Biomolecular engineering
g) Bioresource engineering
h) Bioprocess engineering

Information engineering

l) Machine learning
m) Data science
n) Artificial intelligence
o) Control theory
p) Signal processing
q) Telecommunications
r) Image processing
s) Information theory
t) Computer vision
u) Natural language processing
v) Bioinformatics
w) Medical image computing
x) Autonomous robotics
y) Mobile robotics

Industrial engineering

a) Manufacturing engineering
b) Construction engineering

Nuclear engineering

i) Medical physics
ii) Nuclear fuel
iii) Radiation protection

Textile engineering

i) Apparel engineering
ii) Fabric engineering