

**HASAN KALYONCU UNIVERSITY**  
**COMPUTER ENGINEERING DEPARTMENT**  
**TECHNICAL ELECTIVE COURSES LIST (MUDEK)**

No	Course Code	Course Name	Credit	ECTS
1	CENG420	Machine Learning	3	5
2	CENG421	Introduction to Data Science - I	3	5
3	CENG422	Introduction to Data Science - II	3	5
4	CENG423	Deep Learning	3	5
5	CENG424	Data Mining	3	5
6	CENG430	Computer Graphics	3	5
7	CENG431	Human Computer Interaction	3	5
8	CENG432	Virtual Reality	3	5
9	CENG433	Innovative Game Design	3	5
10	CENG434	Augmented Reality	3	5
11	CENG440	Cyber Security	3	5
12	CENG441	Mobile and Wireless Networks	3	5
13	CENG442	Network Management	3	5
14	CENG443	Introduction to Internet of Things (IoT)	3	5
15	CENG444	Advanced Internetworking - CISCO	3	5
16	CENG450	Software Quality Assurance	3	5
17	CENG451	Practical UML	3	5
18	CENG452	Software Validation and Verification	3	5
19	CENG453	Software Modelling and Analysis	3	5
20	CENG454	Software Architecture	3	5
21	CENG460	Java Programming	3	5
22	CENG461	Mobile Application Development	3	5
23	CENG462	Numerical Analysis	3	5
24	CENG463	Introduction to Robotics	3	5
25	CENG464	Biomedical Engineering	3	5
26	CENG465	Optimization Algorithms	3	5
27	CENG466	Scientific Computing	3	5
28	CENG467	Web-Based Technologies	3	5
29	CENG468	Soft Computing	3	5
30	CENG469	Information Management Systems	3	5
31	CENG470	Parallel Programming	3	5
32	CENG471	Bioinformatics	3	5
33	CENG472	Introduction to Web Semantics	3	5
34	CENG473	Image Processing and Analysis	3	5
35	CENG474	Introduction to Neural Networks	3	5
36	CENG475	Data Science	3	5
37	CENG476	Internet Architecture	3	5
38	CENG477	Information Security	3	5
39	CENG478	Computer Vision	3	5