English – words

1. Composite – a material which is composed of two or more substances having different physical characteristics.
2. Matrix – a chemical compound that binds the reinforcement.
3. Reinforcement – a phase dispersed in a matrix, that provide strength to its composite.
4. Stress – = relaxation
5. Toughness - = sensitivity
6. Hardness – a measure of the resistance to localized plastic deformation
7. Young’s Modulus – a mechanical property that measures the stiffness of a solid material.
8. Polymer – a large organic molecule.
9. Thermosetting polymer – a polymer that is irreversibly hardened by temperature-induced cross-linking of polymer chains.
10. Thermosoftening polymer – a pomyler that becomes flexible or moldable.
11. Fibre – a natural or synthetic substance that is longer than wide.
12. Anisotropic – a material whose properties vary systematically.
13. Isotropic – a material whose properties are uniform in all orientations
14. Concrete – a composite material composed of fine and coarse aggregate bonded together with a fluid cement.
15. Electronic circuit – a composition of electronic components.
16. PCB – Printed Circuit Board – connect electronic components using conductive trucks.
17. API – Application Programming Interface – a set of communication protocols and tools for building software.
18. OS – Operational system – a software managing computer systems.
19. Task – a computer program instruction loaded to RAM and executed by processor
20. Layout – something that is laid out
21. IoT – Internet of thing – a concept of communication of all type of devices from microprocessor to end-point devices like browser.
22. Microprocessor – uP – an electronic component that processes data
23. Microcontroller – uC – a microprocessor with additional peripherals like memory
24. Open-source – having a code source freely available.
25. FPGA – structure of programmable electronic blocks
26. A/D Conversion(ADC) – a conversion of analog to digital signal
27. D/A Conversion(DAC) – a conversion of digital to analog signal
28. Memory – data storage device
29. Integrated Development Environment(IDE) – a set of programs used to create software
30. Electromagnetic compability (EC) – an ability to work properly in electromagnetic environment.
31. Embedded system – computer system with mechanical or electrical systems
32. Bare-metal – working without OS
33. Transport Layer Security(TLS) – cryptographic protocol designed to provide security over a computer network
34. Secure Socket Layer(SSL) – predecessor of TLS
35. Cryptography – study of techniques for secure information.
36. Encryption – process of transforming data into ciphertext.
37. Decryption – process of transforming ciphertext to plaintext.
38. Public key – key that is being used for data encryption in specific algorithms.
39. Private key – key that is being used for data decryption in specific algorithms.
40. Symmetric encryption – type of encryption that uses the same key for encryption and decryption.
41. Asymmetric encryption - type of encryption that need public key for encryption and private key to decryption.
42. Authorization – process of verifying identity of a subject
43. Prime number – a number that is divisible only by 1 and by itself.
44. TLS/SSL certificate – certificate used to authorize the server TLS/SSL protocol
45. Browser – application for accessing internet pages
46. HTTP(Hypertext Transfer Protocol) – application layer protocol
47. Cipher suite – algorithms used to secure internet connection
48. Coherence – two waves that the same waveform, frequency and phase.
49. Dye – colored substance that chemically bounds to the substance to which it is being applied.
50. Gain medium – Determining factors of the laser.
51. Optical resonator – two parallel mirrors placed around the gain medium
52. Photon – particle without mass, only with charge
53. Pump source – part that provides energy to the laser system.
54. Spectrum – a condition that that can across a continuum.
55. Spontaneous emission - a process in which an atom transition from an excited energy state to a lower energy state
56. Stimulated emission – a process by which an incoming photon can interact with and excited atomic electron.
57. Wave interference – a process of two waves superpose to form a resultant wave.
58. Automation – the technology performed with minimal human assistance
59. Sensor – device, module or subsystem which detect events or changes in its environment.
60. PLC – digital computer which has been adapted to control of manufacturing processes.
61. Control system – manages the behavior of other devices or systems
62. Photodetector – a sensor of light.
63. Inductive sensor – device build to detect or measure objects.
64. Coil – represents output in PLC programming
65. Switch – represents input of PLC programming
66. SCADA – networked data communications and GUI for process management.
67. Servomotor – performs linear movement.
68. Inputs – a source of information about the process for the algorithm in PLC programming.
69. Outputs –connected to actuators
70. Actuators – final elements of automation system
71. Plant – set of devices in object.
72. Thermographic cameras – device that forms a heat zone image
73. Authentication – the act of confirming the truth of data claimed be true.
74. Implementation – realization of technical specification or algorithm as a program.
75. Histogram – type of graph that show the number of rate within different ranges.
76. Grayscale image – image in which the only colors are shades of grey
77. Gradient – a measure of how steep a slope is
78. Data set – a collection of data
79. Activation function – function that defines the output by given input.
80. Convolution – mathematical operation on two functions to produce a third one.
81. Rolling resistance – a force resisting the motion when a body rolls on a surface
82. Ply – a layer of a folded material
83. Synthetic fibers – fibers make by humans with chemical synthesis.
84. Tread – part of tire that makes contact with the road
85. Sidewall – providing lateral stability
86. Bead bundle – secure the tire to the wheel.
87. Bead chafer – area of tire where thread and sidewall meet.
88. Cord – flexible string
89. Innerliner – airtight layer
90. Grooves – space between two tread ribs
91. Tire aspect ratio – ratio of the height of the tire to it’s width
92. Tire load index – maximum load of tire
93. Deflection – change of tire radius after applied load to the tire
94. Retention – the ability to keep something
95. Automotive SPICE – set of technical standards documents for the computer software development.
96. Process – activities that interact to produce a result.
97. Technical standards – norms regarding technical systems.
98. ECU – = electronic control unit.
99. OEM = original equipment manufacturer
100. Software Unit – the smallest elements of software managing one functionality
101. Software detailed design – Documents describes how software units works.
102. Qualification tests – tests checking fulfilment of requirement
103. Software Architecture – plan of whole software system.
104. Unit tests – basic test checking one functionality.
105. V-model – development process that consider a waterfall model.
106. MOLC - = Millions line of software code.
107. Heat gain/loss – the amount of heat that building can take.
108. Thermal performance – the features of material connected with heat
109. Energy balance- the level of energy
110. Photovoltaic cells – a cell that convert solar energy into electrical energy
111. Thin-film – a narrow layer
112. Hinge – a joint that hold elements together
113. Lamella – a thin membrane
114. Glass fibre reinforced polymer – chemical compound that have a thin fibre of glass inside
115. Actuator – a divice that change the energy of compressed gas into the mechanical energy
116. Raw material – a material that can be manufactured
117. Sandwich wall – wall that consist of different layers
118. Tensile strength – the strength that appears in case of acting external tensional force
119. Bending stiffness – a tolerance for flexing
120. Industrial Robot – programmable manipulator designed to move materials.
121. Social robot – robot designed to interact with human
122. Mobile robot – robot designed to move their body from one point to another
123. Tool Center Point – TCP
124. Actuator – a motor that translates control signals into movement
125. Encoder – type of feedback sensor.
126. Degree of freedom – number of controlled actuators in one arm.
127. Closed control loop – control which constantly get feedback information form sensor
128. End-effector – device at the ned of a robotic arm
129. Precision – inaccuracy
130. Coordinate system – defines a position from which robot position can be measured.
131. Machine vision – the technology provide image-based analysis of the environment
132. Mechanics – the study of the effect of physical forces on objects
133. Versatility – quality of being versatile.
134. Ratio – the relationship between two groups of units.
135. Coefficient - a value that appears in front of anther value
136. Fuselage 0 the main body of hydrofoil or plane
137. Discretization – process of transferring objects to discrete counterparts
138. Computational fluid dynamics – fluid mechanics that uses to analyze problems that involve fluid flows
139. Pulse Oximetry – way to measure oxygen saturation of blood.
140. Pulse Oxmeter – device which performing pulse oximetry.
141. Oxygen saturation – oxygen-saturated gemoglobin relative to total hemoglobin in blood.
142. Blood vessels – vessels which transporting blood through body
143. Artery – blood vessel, transporting bllod from heart to cells
144. Arterial blood – blood in arteries
145. Veins – blood vessels transporting blood from cells to heart
146. Venous blood – blood in veins
147. Capillaries – the smallest blood vessels in body
148. Systole – heart beat phase when heart muscles contract
149. Diastole – hear beat phase when heart muscles relax
150. Oxyhemoglobin – hemoglobin which is oxygenated
151. Reduced hemoglobin – hemoglobin without oxygen
152. Extinction – waking of the light beam in the medium
153. Refractive power – a measure of the ability of an optical system to magnify an object.
154. Refractive error – the amount of refractive power needed to focus parallel light
155. Fatal point – point where parallel rays converge
156. Retina – part of eye containing photoreceptors
157. Cornea – layer forming front of an eye
158. Crystalline lens – a transparent elastic structure of an eye.
159. Corrective lens – a lens worn in front of an ametropic eye
160. Astigmatism – faulty vision
161. Visual acuity - sharpness of vision
162. Bifocals – a pair of spectacles having two correcting sections: near and distance
163. Database – collection of data
164. Node – Redistribution point
165. Cryptocurrency – digital asset designed to work as a medium of exchange.
166. Transaction – an activity where money is transfer
167. Miners – people who share their computer resources for extract cryptocurrency
168. Validation – ensuring that data which is use fulfil specific criteria.
169. Blockchain – the technology used to create cryptocurrencies
170. White paper – document that explains how the cryptocurrency works.
171. Digital asset – anything that exists in a binary format.
172. Token – object which give permission for some operations
173. Consciousness – the state of being aware of.
174. To enhance – improve the quality
175. Machine learning – study of algorithms and statistical models for computer
176. Neural network – a computer system modelled on the human brain
177. To emulate – match or surpass something