

# Robomech2021 Keyword List

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|---|--|--|
| 1. Mobile robot                         | 53. Object recognition, Object posture recognition | 105. Peristaltic movement              |
| 2. Soft robot                           | 54. Surgery support                                | 106. Stairs up and down                |
| 3. Measurement, monitoring              | 55. Walking  | 107. Variable stiffness                |
| 4. Image processing                     | 56. Path planning, generation                      | 108. Hydraulic                         |
| 5. Robot hand                           | 57. Coordinated control, operation                 | 109. Inertial sensor, IMU              |
| 6. Mechanism                            | 58. 4-legged robot                                 | 110. Intelligent space                 |
| 7. Manipulator, Robot arm               | 59. Wearable robot                                 | 111. Map generation                    |
| 8. Control                              | 60. Legged robot                                   | 112. Visual servo                      |
| 9. Rehabilitation                       | 61. Mobile mechanism                               | 113. Dual-arm robot                    |
| 10. Livelihood support                  | 62. Cell manipulation                              | 114. Crawler                           |
| 11. UAV(Unmanned Aerial Vehicle), Drone | 63. Infrastructure inspection                      | 115. Proximity sensor                  |
| 12. Deep learning                       | 64. Behavior estimation, prediction                | 116. Genetic algorithm (GA)            |
| 13. Machine learning                    | 65. Optimisation                                   | 117. Wall movement                     |
| 14. Tactile sense                       | 66. Biped robot                                    | 118. Piezoelectric                     |
| 15. Pneumatic, Pneumatic actuator       | 67. Augmented reality(AR)                          | 119. Redundant manipulator             |
| 16. Sensor, Sensor device               | 68. Convolutional neural network(CNN)              | 120. Inverted pendulum                 |
| 17. Autonomous mobile robot             | 69. Robot Operating System (ROS)                   | 121. Network robot                     |
| 18. Human Robot Interaction (HRI)       | 70. Operation support                              | 122. Rescue robot                      |
| 19. Artificial muscle                   | 71. Omnidirectional locomotion                     | 123. Communication                     |
| 20. Biomimetic                          | 72. RGB-D camera                                   | 124. Social implementation             |
| 21. Soft actuator                       | 73. Safety   | 125. RT-Middleware, OpenRTM            |
| 22. Virtual reality(VR)                 | 74. Communication robot                            | 126. Snake robot                       |
| 23. Underwater robot                    | 75. Attitude control                               | 127. Terramechanics                    |
| 24. Image recognition                   | 76. Walking support                                | 128. Trajectory planning               |
| 25. MEMS                                | 77. Neural network                                 | 129. Myoelectric hand                  |
| 26. Grasping                            | 78. Construction robot                             | 130. MR fluid                          |
| 27. Manipulation                        | 79. Autonomous locomotion                          | 131. Surgery simulator                 |
| 28. Welfare                             | 80. Power assist                                   | 132. Micro robot                       |
| 29. Interface                           | 81. Flying robot                                   | 133. Gripping force                    |
| 30. Motion recognition, analysis        | 82. Endoscope, laparoscopic surgery                | 134. Master slave, Leader follower     |
| 31. Vibration                           | 83. Adsorption                                     | 135. Robot contest                     |
| 32. Force display                       | 84. Self-driving, Autonomous driving               | 136. Disaster recovery                 |
| 33. Humanoid                            | 85. Electric wheelchair                            | 137. Excavation                        |
| 34. Wearable device                     | 86. LRF, LiDAR                                     | 138. Self-organization                 |
| 35. Agricultural robot                  | 87. Navigation                                     | 139. Personal mobility                 |
| 36. Wheeled mobile robot                | 88. Link mechanism                                 | 140. Biologging                        |
| 37. Tele-operation                      | 89. Musculoskeletal model                          | 141. Modular robot                     |
| 38. Actuator                            | 90. Obstacle avoidance, Collision avoidance        | 142. Autonomous underwater robot (AUV) |
| 39. Work support                        | 91. High speed vision                              | 143. Motion planning                   |
| 40. Rough terrain locomotion            | 92. Passive walking                                | 144. Transfer Learning                 |
| 41. Self-localization                   | 93. Ultrasonic inspection                          | 145. Fall prevention, avoidance        |
| 42. Education                           | 94. Sensor fusion                                  | 146. Vibration-induced flow            |
| 43. Wire drive                          | 95. Multicopter                                    | 147. Snap through                      |
| 44. 3D measurement                      | 96. SLAM   | 148. Medical robot                     |
| 45. Micro fluid                         | 97. Parallel mechanism                             | 149. Human Augmentation                |
| 46. Reinforcement learning              | 98. Autonomous distributed control                 | 150. Stress                            |
| 47. Tactile sensor                      | 99. 3D printer                                     | 151. Optic nerve                       |
| 48. Automation                          | 100. Step over the step                            |  |
| 49. Mechatronics                        | 101. Jumping robot                                 |  |
| 50. Simulation                          | 102. Underactuation                                |  |
| 51. Motion capture                      | 103. Gaze  |  |
| 52. Force sensor                        | 104. Swarm robot                                   |  |