Loredana Zollo

List of Publications by Year in descending order

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172457 138484 4,162 159 29 citations h-index papers

58 g-index 160 160 160 4154 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Design of a modular and compliant wrist module for upper limb prosthetics. Anatomical Record, 2023, 306, 764-776.	1.4	11
2	A Robot-Aided Rehabilitation Platform for Occupational Therapy withÂRealÂObjects. Biosystems and Biorobotics, 2022, , 851-855.	0.3	4
3	A parallel classification strategy to simultaneous control elbow, wrist, and hand movements. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 10.	4.6	4
4	Modification of Hand Muscular Synergies in Stroke Patients after Robot-Aided Rehabilitation. Applied Sciences (Switzerland), 2022, 12, 3146.	2.5	4
5	Hierarchical Human-Inspired Control Strategies for Prosthetic Hands. Sensors, 2022, 22, 2521.	3.8	8
6	Robotic-Assisted Hand Therapy with Gloreha Sinfonia for the Improvement of Hand Function after Pediatric Stroke: A Case Report. Applied Sciences (Switzerland), 2022, 12, 4206.	2.5	9
7	Combining Robot-Assisted Gait Training and Non-Invasive Brain Stimulation in Chronic Stroke Patients: A Systematic Review. Frontiers in Neurology, 2022, 13, 795788.	2.4	4
8	A Soft Zwitterionic Hydrogel as Potential Coating on a Polyimide Surface to Reduce Foreign Body Reaction to Intraneural Electrodes. Molecules, 2022, 27, 3126.	3.8	6
9	Design and Administration of a Questionnaire for the User-Centered Design of a Novel Upper-Limb Assistive Device for Brachial Plexus Injury and Post-stroke Subjects. Lecture Notes in Computer Science, 2022, , 420-427.	1.3	1
10	Patient-tailored Adaptive Control for Robot-aided Orthopaedic Rehabilitation. , 2022, , .		7
11	Restoring Activities of Daily Living Using an EEG/EOG-Controlled Semiautonomous and Mobile Whole-Arm Exoskeleton in Chronic Stroke. IEEE Systems Journal, 2021, 15, 2314-2321.	4.6	28
12	A Multiscale Approach to Axon and Nerve Stimulation Modeling: A Review. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 397-407.	4.9	9
13	Affordable Robotics for Upper Limb Stroke Rehabilitation in Developing Countries: A Systematic Review. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 11-20.	3.2	32
14	Control Strategies and Performance Assessment of Upper-Limb TMR Prostheses: A Review. Sensors, 2021, 21, 1953.	3.8	17
15	A Robotic Health-Care Assistant for COVID-19 Emergency: A Proposed Solution for Logistics and Disinfection in a Hospital Environment. IEEE Robotics and Automation Magazine, 2021, 28, 71-81.	2.0	19
16	Electrical stimulation of the human median nerve: A comparison between anatomical and simplified simulation models., $2021, \dots$		3
17	Method for Automatic Slippage Detection With Tactile Sensors Embedded in Prosthetic Hands. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 485-497.	3.2	18
18	Analysis of Physiological Parameters and Workload during Working Tasks in COVID-19 Pandemic Conditions., 2021,,.		1

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19	Real-time human core temperature estimation methods and their application in the occupational field: A systematic review. Measurement: Journal of the International Measurement Confederation, 2021, 183, 109776.	5.0	20
20	Introduction. International Journal of Neural Systems, 2021, 31, 2103010.	5.2	0
21	The WGDâ€"A Dataset of Assembly Line Working Gestures for Ergonomic Analysis and Work-Related Injuries Prevention. Sensors, 2021, 21, 7600.	3.8	12
22	Modulation of sensation intensity in the lower limb via Transcutaneous Electrical Nerve Stimulation. , 2021, 2021, 6470-6474.		3
23	Electromechanical and Robotic Devices for Gait and Balance Rehabilitation of Children with Neurological Disability: A Systematic Review. Applied Sciences (Switzerland), 2021, 11, 12061.	2.5	2
24	Visual vs vibrotactile feedback for posture assessment during upper-limb robot-aided rehabilitation. Applied Ergonomics, 2020, 82, 102950.	3.1	16
25	A New Smart-Fabric based Body Area Sensor Network for Work Risk Assessment., 2020, , .		7
26	Touch-and-slippage detection algorithm for prosthetic hands. Mechatronics, 2020, 70, 102402.	3.3	9
27	A Smart Solution for Proprioceptive Rehabilitation through M-IMU Sensors. , 2020, , .		5
28	The intraneural electrical stimulation of human median nerve: a simulation study. , 2020, , .		3
29	Methods and Sensors for Slip Detection in Robotics: A Survey. IEEE Access, 2020, 8, 73027-73050.	4.2	44
30	Evoking Apparent Moving Sensation in the Hand via Transcutaneous Electrical Nerve Stimulation. Frontiers in Neuroscience, 2020, 14, 534.	2.8	10
31	Sensory- and Action-Oriented Embodiment of Neurally-Interfaced Robotic Hand Prostheses. Frontiers in Neuroscience, 2020, 14, 389.	2.8	31
32	Analysis of Human Behavior for Robot Design and Control. Applied Bionics and Biomechanics, 2020, 2020, 1-2.	1.1	0
33	A Surgeon-Robot Shared Control for Ergonomic Pedicle Screw Fixation. IEEE Robotics and Automation Letters, 2020, 5, 2554-2561.	5.1	15
34	Hand motion analysis during robot-aided rehabilitation in chronic stroke. Journal of Biological Regulators and Homeostatic Agents, 2020, 34, 45-52. Technology in Medicine.	0.7	0
35	Robotic hand treatment of patients affected by chronic stroke: a monocentric longitudinal pilot study. Journal of Biological Regulators and Homeostatic Agents, 2020, 34, 79-86. Technology in Medicine.	0.7	0
36	Intraneural electrical stimulation of median nerve: a simulation study on sensory and motor fascicles. Journal of Biological Regulators and Homeostatic Agents, 2020, 34, 127-136. Technology in Medicine.	0.7	O

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37	Simultaneous sEMG Classification of Hand/Wrist Gestures and Forces. Frontiers in Neurorobotics, 2019, 13, 42.	2.8	42
38	A Hybrid Joint/Cartesian DMP-Based Approach for Obstacle Avoidance of Anthropomorphic Assistive Robots. International Journal of Social Robotics, 2019, 11, 783-796.	4.6	20
39	A biofeedback-based posture correction system for working environments. , 2019, , .		2
40	Microneurography as a tool to develop decoding algorithms for peripheral neuro-controlled hand prostheses. BioMedical Engineering OnLine, 2019, 18, 44.	2.7	10
41	Restoring tactile sensations via neural interfaces for real-time force-and-slippage closed-loop control of bionic hands. Science Robotics, 2019, 4, .	17.6	112
42	Physiological Responses During Hybrid BNCI Control of an Upper-Limb Exoskeleton. Sensors, 2019, 19, 4931.	3.8	16
43	Identification of Slippage on Naturalistic Surfaces via Wavelet Transform of Tactile Signals. IEEE Sensors Journal, 2019, 19, 1260-1268.	4.7	8
44	EMG and ENG-envelope pattern recognition for prosthetic hand control. Journal of Neuroscience Methods, 2019, 311, 38-46.	2.5	23
45	Assessment of Muscular Activation Patterns in 3D Upper Limb Robot-Aided Rehabilitation. Biosystems and Biorobotics, 2019, , 349-353.	0.3	1
46	Wearable textile based on silver plated knitted sensor for respiratory rate monitoring., 2018, 2018, 2865-2868.		36
47	Bio-Cooperative Approach for the Human-in-the-Loop Control of an End-Effector Rehabilitation Robot. Frontiers in Neurorobotics, 2018, 12, 67.	2.8	19
48	An Adaptive Arm-Weight Support Platform for 3D Upper Limb Robot-Aided Neuro-Rehabilitation. , 2018, , .		0
49	Biomechatronic design criteria of systems for robot-mediated rehabilitation therapy., 2018,, 29-46.		11
50	Spike detection: The first step towards an ENG-based neuroprosheses. Journal of Neuroscience Methods, 2018, 308, 294-308.	2.5	8
51	Learning by Demonstration for Motion Planning of Upper-Limb Exoskeletons. Frontiers in Neurorobotics, 2018, 12, 5.	2.8	45
52	Feasibility and safety of shared EEG/EOG and vision-guided autonomous whole-arm exoskeleton control to perform activities of daily living. Scientific Reports, 2018, 8, 10823.	3.3	61
53	Human arm joints reconstruction algorithm in rehabilitation therapies assisted by end-effector robotic devices. Journal of NeuroEngineering and Rehabilitation, 2018, 15, 10.	4.6	27
54	Grasp control of a prosthetic hand through peripheral neural signals. Journal of Physics: Conference Series, 2018, 1026, 012006.	0.4	4

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55	Learning by Demonstration for Planning Activities of Daily Living in Rehabilitation and Assistive Robotics. IEEE Robotics and Automation Letters, 2017, 2, 1375-1382.	5.1	57
56	A modular telerehabilitation architecture for upper limb robotic therapy. Advances in Mechanical Engineering, 2017, 9, 168781401668725.	1.6	4
57	A stochastic algorithm for automatic hand pose and motion estimation. Medical and Biological Engineering and Computing, 2017, 55, 2197-2208.	2.8	1
58	Reprint of "Multimodal adaptive interfaces for 3D robot-mediated upper limb neuro-rehabilitation: An overview of bio-cooperative systems― Robotics and Autonomous Systems, 2017, 90, 86-96.	5.1	8
59	A Motion Analysis Protocol for Kinematic Assessment of Polyâ€Articulated Prosthetic Hands With Cosmetic Gloves. Artificial Organs, 2017, 41, E337-E346.	1.9	2
60	Tactile piezoresistive sensors for robotic application: Design and metrological characterization. , 2017, , .		7
61	A vibrotactile stimulation system for improving postural control and knee joint proprioception in lower-limb amputees. , 2017, , .		10
62	An instrumented object for studying human grasping. , 2017, 2017, 1031-1036.		0
63	Comparative performance analysis of M-IMU/EMG and voice user interfaces for assistive robots. , 2017, 2017, 1001-1006.		9
64	A teleoperated control approach for anthropomorphic manipulator using magneto-inertial sensors. , 2017, 2017, 156-161.		8
65	Evaluation of Pressure Capacitive Sensors for Application in Grasping and Manipulation Analysis. Sensors, 2017, 17, 2846.	3.8	4
66	Literature Review on the Effects of tDCS Coupled with Robotic Therapy in Post Stroke Upper Limb Rehabilitation. Frontiers in Human Neuroscience, 2017, 11, 268.	2.0	43
67	Invasive Intraneural Interfaces: Foreign Body Reaction Issues. Frontiers in Neuroscience, 2017, 11, 497.	2.8	81
68	Transcutaneous Vagus Nerve Stimulation Combined with Robotic Rehabilitation Improves Upper Limb Function after Stroke. Neural Plasticity, 2017, 2017, 1-6.	2.2	83
69	Slippage Detection with Piezoresistive Tactile Sensors. Sensors, 2017, 17, 1844.	3.8	38
70	NLR, MLP, SVM, and LDA: a comparative analysis on EMG data from people with trans-radial amputation. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 82.	4.6	97
71	Current Achievements and Future Directions of Hand Prostheses Controlled via Peripheral Nervous System. Studies in Applied Philosophy, Epistemology and Rational Ethics, 2017, , 75-95.	0.3	4
72	Dynamic Adaptive System for Robot-Assisted Motion Rehabilitation. IEEE Systems Journal, 2016, 10, 984-991.	4.6	23

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73	Combining Robotic Training and Non-Invasive Brain Stimulation in Severe Upper Limb-Impaired Chronic Stroke Patients. Frontiers in Neuroscience, 2016, 10, 88.	2.8	27
74	Control of Prosthetic Hands via the Peripheral Nervous System. Frontiers in Neuroscience, 2016, 10, 116.	2.8	93
75	Literature Review on Needs of Upper Limb Prosthesis Users. Frontiers in Neuroscience, 2016, 10, 209.	2.8	467
76	A force-and-slippage control strategy for a poliarticulated prosthetic hand., 2016,,.		18
77	Design and development of a sensorized cylindrical object for grasping assessment. , 2016, 2016, 3366-3369.		8
78	Multimodal adaptive interfaces for 3D robot-mediated upper limb neuro-rehabilitation: An overview of bio-cooperative systems. Robotics and Autonomous Systems, 2016, 85, 62-72.	5.1	21
79	Fusion of M-IMU and EMG signals for the control of trans-humeral prostheses. , 2016, , .		15
80	Experimental analysis of the relationship between neural and muscular recordings during hand control. , 2016, , .		1
81	Multilevel control of an anthropomorphic prosthetic hand for grasp and slip prevention. Advances in Mechanical Engineering, 2016, 8, 168781401666508.	1.6	14
82	Interplay of Rhythmic and Discrete Manipulation Movements During Development: A Policy-Search Reinforcement-Learning Robot Model. IEEE Transactions on Cognitive and Developmental Systems, 2016, 8, 152-170.	3.8	15
83	Intraneural stimulation elicits discrimination of textural features by artificial fingertip in intact and amputee humans. ELife, 2016, 5, e09148.	6.0	286
84	Development and preliminary testing of an instrumented object for force analysis during grasping., 2015, 2015, 6720-3.		15
85	Identification of Dynamic Parameters for Robots with Elastic Joints. Advances in Mechanical Engineering, 2015, 7, 843186.	1.6	14
86	Feedforward Neural Network for Force Coding of an MRI-Compatible Tactile Sensor Array Based on Fiber Bragg Grating. Journal of Sensors, 2015, 2015, 1-9.	1.1	33
87	A bio-inspired force control for cyclic manipulation of prosthetic hands., 2015, 2015, 4824-7.		1
88	Upper-limb kinematic reconstruction during stroke robot-aided therapy. Medical and Biological Engineering and Computing, 2015, 53, 815-828.	2.8	19
89	Comparative analysis and quantitative evaluation of ankle-foot orthoses for foot drop in chronic hemiparetic patients. European Journal of Physical and Rehabilitation Medicine, 2015, 51, 185-96.	2.2	6
90	Microfabricated Tactile Sensors for Biomedical Applications: A Review. Biosensors, 2014, 4, 422-448.	4.7	88

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91	Augmentation-related brain plasticity. Frontiers in Systems Neuroscience, 2014, 8, 109.	2.5	65
92	Patient-Tailored Assistance: A New Concept of Assistive Robotic Device That Adapts to Individual Users. IEEE Robotics and Automation Magazine, 2014, 21, 123-133.	2.0	9
93	New methods of human–robot interaction in medical practice. Computer Methods and Programs in Biomedicine, 2014, 116, 49-51.	4.7	0
94	Development and experimental validation of a master interface with vibrotactile feedback for robotic telesurgery. , 2014 , , .		1
95	A grasp synthesis algorithm based on postural synergies for an anthropomorphic arm-hand robotic system. , $2014, \ldots$		12
96	Mechanisms of Motor Recovery in Chronic and Subacute Stroke Patients Following a Robot-Aided Training. IEEE Transactions on Haptics, 2014, 7, 175-180.	2.7	21
97	Shoulder motor performance assessment in the sagittal plane in children with hemiplegia during single joint pointing tasks. BioMedical Engineering OnLine, 2014, 13, 106.	2.7	2
98	Auto-adaptive robot-aided therapy using machine learning techniques. Computer Methods and Programs in Biomedicine, 2014 , 116 , 123 - 130 .	4.7	53
99	Human Hand Motion Analysis and Synthesis of Optimal Power Grasps for a Robotic Hand. International Journal of Advanced Robotic Systems, 2014, 11, 37.	2.1	27
100	Soft Robotic Manipulation of Onions and Artichokes in the Food Industry. Advances in Mechanical Engineering, 2014, 6, 345291.	1.6	17
101	Multimodal Interfaces to Improve Therapeutic Outcomes in Robot-Assisted Rehabilitation. Springer Tracts in Advanced Robotics, 2014, , 321-343.	0.4	1
102	Multimodal Interfaces to Improve Therapeutic Outcomes in Robot-Assisted Rehabilitation. Springer Tracts in Advanced Robotics, 2014, , 321-343.	0.4	0
103	Efferent microneurography recordings: A tool for motor control study and hand-prosthesis decoding. , 2013, , .		0
104	Pose estimation algorithm for hand assessment. , 2013, , .		0
105	Hot spot hound: A novel robot-assisted platform for enhancing TMS performance. , 2013, 2013, 6301-4.		3
106	Teleoperated control based on virtual fixtures for a redundant surgical system. , 2013, , .		8
107	Robust pose estimation algorithm for wrist motion tracking. , 2013, , .		13
108	Patient-tailored adaptive robotic system for upper-limb rehabilitation. , 2013, , .		28

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109	Design and Characterization of a Novel High-Power Series Elastic Actuator for a Lower Limb Robotic Orthosis. International Journal of Advanced Robotic Systems, 2013, 10, 359.	2.1	55
110	Special Issue on Assistive Robotics [From the Guest Editors]. IEEE Robotics and Automation Magazine, 2013, 20, 16-19.	2.0	9
111	Design, Development and Scaling Analysis of a Variable Stiffness Magnetic Torsion Spring. International Journal of Advanced Robotic Systems, 2013, 10, 372.	2.1	18
112	Dynamic Characterization and Interaction Control of the CBM-Motus Robot for Upper-Limb Rehabilitation. International Journal of Advanced Robotic Systems, 2013, 10, 374.	2.1	7
113	The Role of Learning and Kinematic Features in Dexterous Manipulation: A Comparative Study with Two Robotic Hands. International Journal of Advanced Robotic Systems, 2013, 10, 340.	2.1	9
114	$\label{eq:Multimodal} Multimodal Robotic Device to Assistive and Rehabilitation Tasks. Biosystems and Biorobotics, 2013, , 271-276.$	0.3	1
115	A Robust Hand Pose Estimation Algorithm for Hand Rehabilitation. Lecture Notes in Computer Science, 2013, , 1-10.	1.3	5
116	The passive stiffness of the wrist and forearm. Journal of Neurophysiology, 2012, 108, 1158-1166.	1.8	87
117	An inverse kinematics algorithm for upper-limb joint reconstruction during robot-aided motor therapy. , 2012, , .		14
118	The role of thumb opposition in cyclic manipulation: A study with two different robotic hands. , 2012, , .		2
119	Dynamic submovement composition for motion and interaction control of a robot manipulator. , 2012, , .		0
120	Inter-hemispheric coupling changes associate with motor improvements after robotic stroke rehabilitation. Restorative Neurology and Neuroscience, 2012, 30, 497-510.	0.7	90
121	Patient performance evaluation using Kinect and Monte Carlo-based finger tracking. , 2012, , .		26
122	A bio-inspired grasp optimization algorithm for an anthropomorphic robotic hand. International Journal on Interactive Design and Manufacturing, 2012, 6, 113-122.	2.2	17
123	Validation of a Power Grasping Algorithm for an Anthropomorphic Robotic Hand on the Basis of Human Grasping Action. , 2012, , 91-98.		1
124	Hierarchical reinforcement learning and central pattern generators for modeling the development of rhythmic manipulation skills. , 2011 , , .		10
125	Rehabilitation and Therapeutic Robotics. , 2011, , 835-853.		2
126	Quantitative evaluation of upper-limb motor control in robot-aided rehabilitation. Medical and Biological Engineering and Computing, 2011, 49, 1131-1144.	2.8	102

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127	Experimental validation of a reach-and grasp optimization algorithm inspired to human arm-hand control., 2011, 2011, 8150-3.		0
128	Robotic technologies and rehabilitation: new tools for upper-limb therapy and assessment in chronic stroke. European Journal of Physical and Rehabilitation Medicine, 2011, 47, 223-36.	2.2	37
129	Incremental learning control of the DLR-HIT-Hand II during interaction tasks. , 2010, 2010, 3194-7.		1
130	A wearable ergonomic gaze-tracker for infants. , 2010, 2010, 1283-6.		5
131	Submovement composition for motion and interaction control of a robot manipulator., 2010,,.		4
132	An Internal Model for Acquisition and Retention of Motor Learning During Arm Reaching. Neural Computation, 2009, 21, 2009-2027.	2.2	21
133	Brain activity preceding a 2D manual catching task. NeuroImage, 2009, 47, 1735-1746.	4.2	72
134	Performance analysis of adaptive interaction control laws for rehabilitation robotics., 2008,,.		3
135	An Anthropomorphic Robotic Head for Investigating Gaze Control. Advanced Robotics, 2008, 22, 57-89.	1.8	12
136	An Anthropomorphic Robotic Platform for Progressive and Adaptive Sensorimotor Learning. Advanced Robotics, 2008, 22, 91-118.	1.8	7
137	Design of a planar robotic machine for neuro-rehabilitation. , 2008, , .		15
138	Design of a planar robotic machine for telerehabilitation of elderly patients. Gerontechnology, 2008, 7, .	0.1	2
139	Biomechatronic Design and Control of an Anthropomorphic Artificial Hand for Prosthetic and Robotic Applications. IEEE/ASME Transactions on Mechatronics, 2007, 12, 418-429.	5.8	287
140	PD control with on-line gravity compensation for robots with flexible links. , 2007, , .		18
141	Reach and Grasp for an Anthropomorphic Robotic System based on Sensorimotor Learning., 2006,,.		3
142	Torque-Dependent Compliance Control in the Joint Space for Robot-Mediated Motor Therapy. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 152-158.	1.6	34
143	PD control with on-line gravity compensation for robots with elastic joints: Theory and experiments. Automatica, 2005, 41, 1809-1819.	5.0	224
144	A bio-inspired approach for regulating and measuring visco-elastic properties of a robot arm. Journal of Field Robotics, 2005, 22, 397-419.	0.7	14

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145	Compliance Control for an Anthropomorphic Robot with Elastic Joints: Theory and Experiments. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2005, 127, 321-328.	1.6	77
146	Regulation with on-line gravity compensation for robots with elastic joints. , 2004, , .		22
147	An experimental study on compliance control for a redundant personal robot arm. Robotics and Autonomous Systems, 2003, 44, 101-129.	5.1	61
148	Experimental comparative evaluation of compliant control schemes for an anthropomorphic personal robot. , 2002, , .		3
149	Functional compliance in the control of a personal robot. , 0, , .		8
150	Experimental validation of functional compliance in an anthropomorphic personal robot., 0,,.		2
151	An impedance-compliance control for a cable-actuated robot. , 0, , .		5
152	Compliant control for a cable-actuated anthropomorphic robot arm: an experimental validation of different solutions. , 0, , .		11
153	An anthropomorphic robotic platform for experimental validation of biologically-inspired sensory-motor co-ordination in grasping. , 0, , .		3
154	A bio-inspired approach for regulating visco-elastic properties of a robot arm., 0,,.		10
155	Parallel force/position control of a novel biomechatronic hand prosthesis. , 0, , .		21
156	Torque-Dependent Compliance Control in the Joint Space of a Cartesian Robotic Machine for Motor Therapy. , 0, , .		14
157	Design Criteria for a Mechatronic Handle for Measuring Visco-Elastic Properties of the Human Arm. , 0, , .		0
158	A Bio-inspired Neuro-Controller for an Anthropomorphic Head-Arm Robotic System. , 0, , .		3
159	BioMechatronic Design and Control of an Anthropomorphic Artificial Hand for Prosthetics and Robotic Applications. , 0, , .		20