Mechanical design technology and application items

Item	Representatives			DOI	Item	Representatives			DOI
$th_{9}A_{11}$	a_{4}	b_{15}	ch_{2}	https://doi.org/10.1016/0921-8890(88)90020-6	$th_{4}A_{20}$	a_{3}	b_{2}	ch_{2}	https://doi.org/10.22260/isarc2011/0265
$th_{25}A_{54}$		b_{67}	ch_{2}	https://doi.org/10.4043/5708-ms	$th_{10}A_{19}$	a_{3}	b_{16}	ch_{2}	https://doi.org/10.22260/isarc2011/0223
$th_{35}A_{21}$	a_{2}	b_{2}	ch_{6}	https://doi.org/10.1061/(asce)0733-9364(1989)115:3(412)	$th_{20}A_{12}$	a_{3}	b_{57}	ch_{2}	https://doi.org/10.22260/isarc2011/0266
$th_{141}A_{7}$	a_{4}	b_{12}	ch_{6}	https://doi.org/10.1016/0921-8890(89)90032-8	$th_{26}A_{17}$		b_{49}	ch_{2}	https://doi.org/10.22260/isarc2011/0125
$th_{157}A_{50}$		b_{52}	ch_{3}	https://doi.org/10.1109/iros.1989.637897	$th_{28}A_{19}$			ch_{2}	https://doi.org/10.22260/isarc2011/0272
$th_{35}A_{7}$	a_{2}	b_{2}	ch_{6}	https://doi.org/10.1080/02630259008970581	$th_{28}A_{38}$			ch_{2}	https://ieeexplore.ieee.org/abstract/document/6060381
$th_{36}A_{7}$	a_{3}	b_{12}	ch_{6}	https://doi.org/10.1061/(asce)0887-3801(1992)6:3(370)	$th_{28}A_{17}$			ch_{2}	https://doi.org/10.22260/isarc2011/0230
$th_{61}A_{29}$	a_{5}	b_{27}	ch_{2}	https://doi.org/10.1016/0926-5805(92)90017-e	$th_{68}A_{33}$	a_{2}	b_{45}	ch_{2}	https://ieeexplore.ieee.org/abstract/document/6106197
$th_{62}A_{7}$	a_{2}	b_{2}	ch_{1}	https://doi.org/10.22260/isarc1993/0044	$th_{82}A_{41}$	a_{2}	b_{61}	ch_{6}	https://doi.org/10.22260/isarc2011/0011
$th_{156}A_{6}$	a_{3}	b_{12}	ch_{1}	https://doi.org/10.1016/0926-5805(92)90038-l	$th_{97}A_{45}$	a_{5}	b_{26}	ch_{2}	https://doi.org/10.22260/isarc2011/0277
$th_{157}A_{47}$		b_{52}	ch_{3}	https://cedb.asce.org/CEDBsearch/record.jsp?dockey=0076716	$th_{119}A_{56}$	a_{2}		ch_{1}	https://doi.org/10.1016/j.proeng.2011.08.198
$th_{123}A_{31}$	a_{2}	b_{52}	ch_{2}	https://doi.org/10.1061/(ASCE)0733-9364(1992)118:4(731)	$th_{148}A_{8}$	a_{6}	b_{24}	ch_{2}	https://doi.org/10.22260/isarc2011/0222
$th_{33}A_{20}$	a_{3}	b_{21}	ch_{2}	https://doi.org/10.1016/0926-5805(93)90043-W	$th_{153}A_{6}$	a_{3}	b_{2}	ch_{3}	https://doi.org/10.1016/j.autcon.2010.12.005
$th_{36}A_{21}$	a_{3}	b_{12}	ch_{6}	https://doi.org/10.1016/0926-5805(93)90036-w	$th_{22}A_{6}$	a_{3}	b_{32}	ch_{2}	https://ieeexplore.ieee.org/abstract/document/6454459
$th_{39}A_{22}$	a_{3}	b_{55}	ch_{2}	https://doi.org/10.1061/(asce)0893-1321(1993)6:1(19)	$th_{27}A_{28}$	a_{3}	b_{46}	ch_{2}	https://doi.org/10.1109/iros.2012.6386278
$th_{126}A_{6}$	a_{5}	b_{2}	ch_{2}	https://doi.org/10.1109/iros.1993.583154	$th_{28}A_{38}$			ch_{2}	https://doi.org/10.20965/jrm.2012.p0985
$th_{142}A_{7}$	a_{4}	b_{12}	ch_{2}	https://doi.org/10.1016/0926-5805(93)90042-v	$th_{63}A_{3}$	a_{3}	b_{32}	ch_{3}	https://doi.org/10.3182/20120523-3-ro-2023.00341
$th_{13}A_{29}$	a_{3}	b_{7}	ch_{2}	https://doi.org/10.1016/b978-0-444-82044-0.50081-3	$th_{64}A_{10}$		b_{30}	ch_{3}	https://doi.org/10.22260/isarc2012/0079
$th_{19}A_{22}$	a_{2}	b_{2}	ch_{2}	https://doi.org/10.1016/b978-0-444-82044-0.50017-5	$th_{115}A_{55}$	a_{3}	b_{4}	ch_{2}	https://doi.org/10.1016/j.autcon.2012.03.005
$th_{22}A_{58}$	a_{3}	b_{32}	ch_{2}	https://doi.org/10.1061/(asce)0733-9364(1994)120:1(132)	$th_{129}A_{6}$	a_{3}	b_{74}	ch_{2}	https://doi.org/10.1016/j.autcon.2011.06.003
$th_{23}A_{24}$		b_{32}	ch_{2}	https://doi.org/10.1016/0926-5805(94)90035-3	$th_{8}A_{8}$	a_{3}	b_{2}	ch_{3}	https://doi.org/10.1016/j.autcon.2012.12.011
$th_{25}A_{53}$		b_{67}	ch_{2}	https://cedb.asce.org/CEDBsearch/record.jsp?dockey=0086321	$th_{13}A_{29}$	a_{3}	b_{7}	ch_{2}	https://doi.org/10.22260/isarc2013/0153
$th_{40}A_{22}$	a_{2}	b_{56}	ch_{2}	https://doi.org/10.1109/iros.1994.407628	$th_{51}A_{7}$		b_{30}	ch_{2}	https://doi.org/10.1109/aim.2013.6584222
$th_{60}A_{34}$	a_{3}	b_{12}	ch_{2}	https://doi.org/10.1016/0926-5805(94)90027-2	$th_{58}A_{28}$		b_{44}	ch_{3}	https://doi.org/10.1007/978-1-4614-1418-6_5
$th_{98}A_{6}$	a3	b19	ch2	https://doi.org/10.1016/b978-0-444-82044-0.50084-9	$th_{64}A_{10}$		b_{30}	ch_{3}	https://doi.org/10.1016/j.autcon.2013.01.008
$th_{151}A_{27}$		b_{52}	ch_{1}	https://doi.org/10.1016/0926-5805(94)90037-x	$th_{107}A_{5}$			ch1	https://doi.org/10.1016/j.autcon.2013.01.017
$th_{10}A_{11}$	a_{3}	b_{16}	ch_{2}	https://doi.org/10.1016/0926-5805(95)00005-l	$th_{140}A_{63}$	a_{6}	b_{57}	ch_{2}	https://doi.org/10.1016/j.autcon.2012.08.006

$th_{25}A_{54}$		b_{67}	ch_2	https://www.scopus.com/inward/record.uri?eid=2-s2.00029292557&partnerID=40&md5=3e456473ab91e826f09267d7539b2a29	$th_{147}A_8$	a_2	b_7	ch_3	https://doi.org/10.1007/978-1-4614-1418-6_4
$th_{25}A_{54}$		b_{67}	ch_2	https://www.nipponsteel.com/en/tech/report/nsc/pdf/6507.pdf	$th_{149}A_{10}$	a_3	b_{62}	ch_3	https://doi.org/10.1007/978-1-4614-1418-6_4
$th_{28}A_{11}$			ch_2	https://www.scopus.com/inward/record.uri?eid=2-s2.0-0029323997&partnerID=40&md5=6e6a19d34bd24151a2e090bcd593f82b	th_4A_6	a_3	b_2	ch_2	https://doi.org/10.1016/j.autcon.2014.06.005
$th_{34}A_{20}$	a_3	b_{32}	ch_2	https://doi.org/10.1016/0926-5805(95)00008-o	$th_{26}A_{10}$		b_{49}	ch_2	https://doi.org/10.22260/isarc2014/0134
$th_{49}A_{34}$		b_{36}	ch_2	https://doi.org/10.1016/0926-5805(94)00043-m	$th_{31}A_2$		b_1	ch_2	https://doi.org/10.1109/iccas.2014.6987959
$th_{88}A_{44}$	a_3	b_2	ch_6	https://doi.org/10.1109/iros.1995.526255	$th_{46}A_{34}$		b_{58}	ch_2	https://doi.org/10.1007/s10846-013-9948-x
$th_{124}A_{59}$	a_2	b_{12}	ch_2	https://doi.org/10.1109/robot.1994.351124	$th_{47}A_5$	a3	b_{58}	ch_2	https://doi.org/10.1016/j.autcon.2014.01.004
th_1A_1	a_2	b_{32}	ch_2	https://doi.org/10.1016/0926-5805(95)00010-0	$th_{72}A_{34}$		b_{42}	ch_3	https://doi.org/10.1002/ad.1763
$th_{25}A_{54}$		b_{67}	ch_2	https://jglobal.jst.go.jp/en/detail?JGLOBAL_ID=200902164462768987	$th_{105}A_{47}$	a_2	b_2	ch_3	https://doi.org/10.1109/tase.2013.2241425
$th_{41}A_{22}$	a_5	b_{12}	ch_2	https://doi.org/10.1016/0926-5805(95)00009-7	$th_{120}A_{56}$	a_3	b_{32}	ch_1	https://doi.org/10.3846/13923730.2015.1023349
$th_{59}A_{28}$	a_3	b_{15}	ch_2	https://doi.org/10.1299/kikaic.62.658	$th_{121}A_{57}$	a_3	b_{83}	ch_2	https://doi.org/10.1016/j.autcon.2013.06.010
$th_{64}A_{50}$		b_{30}	ch_3	https://cedb.asce.org/CEDBsearch/record.jsp?dockey=0100671	$th_{131}A_6$	a_3	b_{71}	ch_2	https://www.scientificbulletin.upb.ro/rev_docs_arhiva/full505_514402.pdf
$th_{127}A_6$	a_3	b_{36}	ch_2	https://doi.org/10.1061/(asce)0733-9364(1992)118:4(731)	$th_{137}A_{55}$	a_2	b_2	ch_1	https://doi.org/10.1109/iccas.2014.6987825
$th_{28}A_{17}$			ch_2	https://doi.org/10.1016/0926-5805(95)00018-6	th_2A_6	a_3	b_{52}	ch_2	https://doi.org/10.22260/isarc2015/0070
th_8A_8	a_3	b_2	ch_3	https://doi.org/10.1109/iros.1997.656583	$th_{29}A_{28}$	a_3	b_{45}	ch_3	https://doi.org/10.1109/iccas.2015.7364817
$th_{11}A_{11}$	a3	b_{17}	ch_2	https://doi.org/10.1016/s0926-5805(97)00004-6	$th_{30}A_{19}$	a_2	b_{57}	ch_2	https://doi.org/10.1016/j.autcon.2015.07.006
$th_{13}A_8$	a_3	b_7	ch_2	https://doi.org/10.22260/isarc1996/0031	$th_{43}A_{22}$		b_{54}	ch_2	https://www.researchgate.net/publication/292970258_Between_Manual_and_Robotic_Approaches_to_Brick_Construction_in_Architecture
$th_{24}A_{17}$	a_2	b_{67}	ch_2	https://doi.org/10.1016/s0926-5805(98)00083-1	$th_{52}A_{29}$	a_6	b_{13}	ch_2	https://doi.org/10.1109/icit.2015.7125568
$th_{60}A_{54}$	a_3	b_{12}	ch_2	https://www.scopus.com/inward/record.uri?eid=2-s2.0-0032137399&partnerID=40&md5=ea005ced8130b725438f6a0afbc7ceef	$th_{116}A_{55}$	a_3	b_5	ch_2	https://doi.org/10.1016/j.ifacol.2015.06.048
$th_{62}A_{29}$	a_2	b_2	ch_1	https://www.scopus.com/inward/record.uri?eid=2-s2.0-0032137399&partnerID=40&md5=ea005ced8130b725438f6a0afbc7ceef	$th_{121}A_{57}$	a3	b_{83}	ch_2	https://doi.org/10.1016/j.autcon.2014.12.013

$th_{106}A_{49}$		b_{49}	ch_6	https://doi.org/10.1109/tdcllm.1998.668331	$th_{14}A_{37}$		b_7	ch_2	https://doi.org/10.1016/j.autcon.2015.09.011
$th_{12}A_{11}$	a_2	b_7	ch_2	https://doi.org/10.1061/40337(205)30	$th_{23}A_{29}$		b_{32}	ch_2	https://doi.org/10.1007/978-3-319-08338-4_99
$th_{19}A_{12}$	a_2	b_2	ch_2	https://doi.org/10.1016/s0926-5805(99)00041-2	$th_{29}A_{29}$	a_3	b_{45}	ch_3	https://doi.org/10.22260/isarc2016/0125
$th_{96}A_{45}$	a_3	b_{34}	ch_2	https://www.scopus.com/inward/record.uri?eid=2-s2.0-0033884120&doi=10.1016%2fS0926-5805%2899%2900040-0&partnerID=40&md5=8774fcaee713a3fa6f5ad5b9ad8f79db	$th_{44}A_{22}$	a_6	b_{26}	ch_2	https://doi.org/10.22260/ISARC2016/0041
$th_{151}A_{56}$		b_{52}	ch_1	https://doi.org/10.1016/s0926-5805(00)00060-1	$th_{73}A_{34}$		b_{30}	ch_3	https://doi.org/10.1016/j.procir.2016.02.108
$th_{152}A_{56}$	a_3	b_{67}	ch_1	https://doi.org/10.1299/kikaic.66.3664	$th_{74}A_{34}$	a_3	b_9	ch_3	https://doi.org/10.22260/isarc2016/0050
$th_{32}A_{20}$	a_2	b_{12}	ch_3	https://doi.org/10.5772/13043	$th_{108}A_5$	a_2	b_{32}	ch_1	https://doi.org/10.1016/j.autcon.2016.05.009
$th_{112}A_{54}$		b_{11}	ch_2	https://doi.org/10.1016/s0926-5805(00)00104-7	$th_{109}A_{50}$		b_{78}	ch_2	http://idm-lab.org/bib/abstracts/papers/aamas16b.pdf
$th_{85}A_{42}$	a_2	b_3	ch_1	https://doi.org/10.1111/0885-9507.00225	$th_{109}A_{37}$		b_{78}	ch_2	https://doi.org/10.3130/aijt.22.331
$th_{128}A_6$	a_3	b_{70}	ch_2	https://doi.org/10.1163/156855302320535836	$th_{110}A_{50}$	a_4	b_{52}	ch_1	https://ijssst.info/Vol-17/No-46/paper41.pdf
$th_{143}A_7$	a_4	b_{33}	ch_2	https://doi.org/10.3182/20020721-6-es-1901.00815	$th_{136}A_6$	a_3	b_{19}	ch_1	https://doi.org/10.1109/ccdc.2016.7531951
$th_{40}A_{22}$	a_2	b_{56}	ch_2	https://doi.org/10.1109/100.993151	$th_{15}A_{11}$		b_{23}	ch_2	https://doi.org/10.1016/j.autcon.2017.02.005
$th_{28}A_{11}$			ch_2	https://doi.org/10.1007/3-540-29461-9_103	$th_{16}A_{11}$	a_6	b_{25}	ch_2	https://doi.org/10.22260/isarc2017/0034
$th_{55}A_{28}$	a_3	b_{36}	ch_6	https://doi.org/10.1108/01439910310506774	$th_{22}A_{15}$	a_3	b_{32}	ch_2	https://doi.org/10.1109/icarcv.2016.7838741
$th_{91}A_{56}$	a_1	b_{67}	ch_3	https://doi.org/10.1108/01439910310492185	$th_{22}A_6$	a_3	b_{32}	ch_2	https://doi.org/10.1051/matecconf/201712101006
$th_{113}A_{54}$	a_3	b_{10}	ch_2	https://doi.org/10.1108/01439910310473979	$th_{23}A_{15}$		b_{32}	ch_2	https://doi.org/10.1109/iros.2017.8206499
$th_{150}A_{56}$	a_2	b_1	ch_2	https://doi.org/10.1109/iros.2003.1248794	$th_{28}A_6$			ch_2	https://doi.org/10.22260/isarc2017/0010
$th_{152}A_{56}$	a_3	b_{67}	ch_1	https://doi.org/10.1080/14399776.2003.10781164	$th_{45}A_{22}$	a_3	b_{59}	ch_2	https://doi.org/10.1080/23311916.2017.1361600
$th_{14}A_{63}$		b_7	ch_2	https://doi.org/10.1016/j.autcon.2003.08.012	$th_{47}A_6$	a_3	b_{58}	ch_2	https://doi.org/10.1109/iros.2017.8206398
$th_{26}A_8$		b_{49}	ch_2	https://doi.org/10.1016/j.autcon.2003.08.009	$th_{64}A_3$		b_{30}	ch_3	https://doi.org/10.1007/978-3-319-49058-8_64
$th_{28}A_{11}$			ch_2	https://ieeexplore.ieee.org/document/1438590	$th_{65}A_{30}$	a_1	b_{70}	ch_2	https://doi.org/10.26226/morressier.59c106e8d462b80292389b97
$th_{60}A_{28}$	a_3	b_{12}	ch_2	https://doi.org/10.1109/iros.2004.1389410	$th_{67}A_{60}$		b_{75}	ch_2	https://doi.org/10.1051/matecconf/201712905018
$th_{117}A_{55}$	a_1	b_2	ch_1	https://doi.org/10.1109/ut.2004.1405598	$th_{75}A_{34}$	a_5	b_7	ch_3	https://doi.org/10.1007/978-3-319-49058-8_60
th_7A_{11}	a_5	b_{20}	ch_3	https://doi.org/10.1016/j.autcon.2004.09.008	$th_{77}A_9$		b_2	ch_2	https://doi.org/10.1061/(asce)co.1943-7862.0001268
$th_{28}A_{11}$			ch_2	https://doi.org/10.22260/isarc2005/0053	$th_{104}A_{45}$	a_3	b_{35}	ch_1	https://doi.org/10.1016/j.autcon.2017.07.004
$th_{65}A_{60}$	a_1	b_{70}	ch_2	https://doi.org/10.22260/isarc2005/0040	$th_{111}A_{52}$		b_{16}	ch_2	https://www.researchgate.net/publication/329591348_Towards_Force-aware_Robot_Collectives_for_On-site_Construction
$th_{81}A_{40}$	a_2	b_{49}	ch_3	https://doi.org/10.1109/icia.2005.1635079	$th_{138}A_6$	a_3	b_2	ch_1	https://doi.org/10.22260/isarc2017/0091

$th_{107}A_{56}$			ch_1	https://www.researchgate.net/publication/294214022_Graphical_simulation_of_remote_control_construction_robot_based_on_virtual_reality	th_2A_6	a_3	b_{52}	ch_2	https://doi.org/10.22260/isarc2018/0027
$th_{129}A_6$	a_3	b_{74}	ch_2	https://doi.org/10.22260/isarc2005/0056	th_4A_6	a_3	b_2	ch_2	https://doi.org/10.1016/j.autcon.2017.12.001
$th_{130}A_6$	a_3	b_{70}	ch_2	https://doi.org/10.22260/isarc2005/0057	th_5A_{11}		b_{27}	ch_2	https://doi.org/10.1016/j.ifacol.2018.08.403
th_8A_{11}	a_3	b_2	ch_3	https://doi.org/10.1002/rob.20122	th_6A_{11}		b_{13}	ch_2	https://doi.org/10.1016/j.autcon.2018.02.005
$th_{18}A_{11}$	a_3	b_{32}	ch_1	https://doi.org/10.22260/isarc2006/0150	$th_{16}A_{11}$	a_6	b_{25}	ch_2	https://doi.org/10.29007/hj27
$th_{25}A_{34}$		b_{67}	ch_2	https://doi.org/10.1016/j.autcon.2005.10.013	$th_{22}A_6$	a_3	b_{32}	ch_2	https://doi.org/10.1016/j.autcon.2018.07.003
$th_{51}A_{59}$		b_{30}	ch_2	https://doi.org/10.22260/isarc2006/0092	$th_{23}A_{30}$		b_{32}	ch_2	https://doi.org/10.1061/9780784481899.029
$th_{53}A_{23}$	a_3	b_{66}	ch_2	https://doi.org/10.22260/isarc2006/0047	$th_{28}A_{28}$			ch_2	https://doi.org/10.22260/isarc2018/0171
$th_{84}A_{41}$	a_1	b_{30}	ch_1	https://doi.org/10.1163/156855306775525811	$th_{28}A_{19}$			ch_2	https://www.researchgate.net/publication/327939855_Smart_construction_robot_technology_to_improve_construction_and_safety_in_outer_walls_of_high-rise_buildings
$th_{86}A_{42}$		b_3	ch_1	https://doi.org/10.22260/isarc2006/0120	$th_{42}A_{22}$	a_6	b_{53}	ch_2	https://doi.org/10.1109/simpar.2018.8376287
$th_{89}A_{44}$			ch_3	https://doi.org/10.1109/sice.2006.314939	$th_{44}A_{22}$	a_6	b_{26}	ch_2	https://link.springer.com/chapter/10.1007/978-3-319-68646-2_3
$th_{94}A_{56}$	a_2		ch_1	https://doi.org/10.1109/iros.2006.281913	$th_{46}A_{22}$		b_{58}	ch_2	https://doi.org/10.1016/j.autcon.2018.06.015
$th_{118}A_{55}$	a_2	b_3	ch_1	https://doi.org/10.22260/isarc2006/0009	$th_{76}A_{34}$	a_6	b_{25}	ch_2	https://doi.org/10.1007/978-3-319-61431-1_30
th_1A_1	a_2	b_{32}	ch_2	https://doi.org/10.22260/isarc2007/0040	$th_{77}A_6$		b_2	ch_2	https://doi.org/10.1016/j.autcon.2018.02.021
th_8A_{11}	a_3	b_2	ch_3	https://doi.org/10.1007/s10514-006-9019-2	$th_{98}A_{45}$	a_3	b_{19}	ch_2	https://doi.org/10.1016/j.autcon.2018.09.006
th_8A_{44}	a_3	b_2	ch_3	https://doi.org/10.1007/s10514-006-9022-7	$th_{99}A_{45}$	a_3	b_{37}	ch_2	https://doi.org/10.1016/j.autcon.2018.03.015
$th_{16}A_{63}$	a_6	b_{25}	ch_2	https://doi.org/10.1115/detc2006-99016	$th_{114}A_{54}$		b_{14}	ch_2	https://doi.org/10.1007/978-3-319-99704-9_37
$th_{38}A_{21}$	a_2	b_{69}	ch_1	https://doi.org/10.1016/j.autcon.2006.09.002	$th1_{25}A_6$	a_3	b_{73}	ch_3	https://doi.org/10.1016/j.autcon.2018.02.013
$th_{56}A_{28}$	a_3	b_{42}	ch_3	https://doi.org/10.22260/isarc2007/0044	$th1_{32}A_6$		b_{72}	ch_2	https://doi.org/10.22260/isarc2018/0074
$th_{63}A_6$	a_3	b_{32}	ch_3	https://doi.org/10.1016/j.autcon.2006.05.003	$th_{132}A_6$		b_{72}	ch_2	https://doi.org/10.22260/isarc2018/0030
$th_{70}A_{34}$		b_{60}	ch_3	https://doi.org/10.1109/iccas.2007.4406518	$th_{133}A_6$	a_3	b_3	ch_2	https://doi.org/10.22260/isarc2018/0097
$th_{80}A_6$	a_3	b_{58}	ch_2	https://doi.org/10.1016/j.autcon.2006.12.010	$th_{154}A_6$	a_3	b_{46}	ch_2	https://doi.org/10.5220/0006930205340541
$th_{90}A_{44}$		b_{67}	ch_3	https://doi.org/10.1007/s10514-006-9722-z	$th_{14}A_{44}$		b_7	ch_2	https://doi.org/10.1109/etfa.2019.8869343
$th_{93}A_{44}$		b_2	ch_1	https://doi.org/10.22260/isarc2007/0046	$th_{16}A_{22}$	a_6	b_{25}	ch_2	https://doi.org/10.1002/bate.201800090
$th_{146}A_8$		b_{26}	ch_2	https://doi.org/10.1109/iccas.2007.4406667	$th_{17}A_{11}$	a_6	b_{28}	ch_2	https://doi.org/10.22260/isarc2019/0089
$th_{25}A_{63}$		b_{67}	ch_2	https://doi.org/10.1016/j.autcon.2006.12.003	$th_{21}A_{13}$		b_{31}	ch_3	https://doi.org/10.1007/978-3-030-05321-5_11
th_2A_1	a_3	b_{52}	ch_2	https://doi.org/10.1016/j.autcon.2006.12.003	$th_{28}A_{30}$			ch_2	https://doi.org/10.1016/j.autcon.2019.03.024
$th_{13}A_8$	a_3	b_7	ch_2	https://doi.org/10.1109/iccas.2008.4694183	$th_{46}A_6$		b_{58}	ch_2	https://doi.org/10.22260/isarc2019/0128
$th_{37}A_{21}$	a_2	b_{25}	ch_3	https://doi.org/10.1016/j.autcon.2007.04.004	$th_{48}A_{22}$	a_3	b_{36}	ch_2	https://erp.mepcoeng.ac.in/images/Employee/Journal/Paper4141.pdf
$th_{57}A_{28}$	a_3	b_{44}	ch_3	https://doi.org/10.3846/isarc.20080626.181	$th_{51}A_{22}$		b_{30}	ch_2	http://papers.cumincad.org/data/works/att/caadria2019_275.pdf
$th_{71}A_{34}$		b_{45}	ch_3	https://doi.org/10.1109/mfi.2008.4648016	$th_{69}A_{60}$	a_2	b_{76}	ch_2	https://core.ac.uk/download/pdf/234021207.pdf

$th_{89}A_{10}$			ch_3	https://www.researchgate.net/publication/283381249_A_human-robot_cooperative_system_helps_out_with_glass_panels_in_construction	$th_{77}A_{37}$		b_2	ch_2	https://doi.org/10.22260/ISARC2019/0162
$th_{95}A_{44}$	a_3	b_{32}	ch_1	https://doi.org/10.1016/j.autcon.2007.08.006	$th_{77}A_{37}$		b_2	ch_2	https://doi.org/10.22260/ISARC2019/0070
$th_{122}A_{56}$	a_1	b_{12}	ch_1	https://doi.org/10.1016/j.autcon.2008.02.004	$th_{77}A_{41}$		b_2	ch_2	https://doi.org/10.1016/j.autcon.2018.11.009
$th_{139}A_{60}$	a_3	b_{12}	ch_3	https://doi.org/10.1016/j.autcon.2006.12.004	$th_{79}A_{38}$	a_3	b_{79}	ch_2	https://doi.org/10.1016/j.autcon.2019.102912
$th_{144}A_8$	a_2	b_{63}	ch_6	https://doi.org/10.1109/icsma.2008.4505571	$th_{79}A_{38}$	a_3	b_{79}	ch_2	https://doi.org/10.22260/ISARC2018/0085
th_3A_1	a_1	b_2	ch_2	https://doi.org/10.1016/j.autcon.2009.02.007	$th_{86}A_{42}$		b_3	ch_1	https://doi.org/10.22260/ISARC2019/0154
$th_{13}A_8$	a_3	b_7	ch_2	https://doi.org/10.1109/iccas.2010.5669929	$th_{87}A_{42}$	a_2	b_{61}	ch_1	https://link.springer.com/chapter/10.1007/978-3-030-05321-5_5
$th_{26}A_{29}$		b_{49}	ch_2	https://doi.org/10.22260/isarc2009/0020	$th_{100}A_{45}$	a_3	b_{39}	ch_2	https://doi.org/10.1016/j.autcon.2019.03.017
$th_{129}A_6$	a_3	b_{74}	ch_2	https://doi.org/10.1109/icmech.2009.4957126	$th_{101}A_{45}$	a_3	b_{38}	ch_2	https://doi.org/10.1016/j.autcon.2019.102959
$th_{145}A_8$	a_3	b_{63}	ch_3	https://doi.org/10.1109/icara.2000.4803937	$th_{102}A_{45}$	a_3	b_{41}	ch_2	https://doi.org/10.1016/j.autcon.2019.02.002
th_8A_{44}	a_3	b_2	ch_3	https://doi.org/10.1017/s0263574710000573	$th_{103}A_{45}$	a_3	b_{40}	ch_2	https://doi.org/10.1016/j.autcon.2019.01.025
$th_{14}A_8$		b_7	ch_2	https://doi.org/10.1109/iccas.2010.5669929	$th_{134}A_6$	a_3	b_{13}	ch_2	https://doi.org/10.1109/tase.2018.2829927
$th_{50}A_{45}$	a_3	b_{36}	ch_2	https://doi.org/10.1016/j.autcon.2010.07.011	$th_{135}A_6$	a1	b_{15}	ch_2	https://doi.org/10.1109/robosoft.2019.8722720
$th_{54}A_{26}$	a_2	b_{61}	ch_3	https://doi.org/10.1109/aim.2010.5695941	$th_{78}A_{37}$	a3	b_{48}	ch_2	https://doi.org/10.1016/j.autcon.2020.103400
$th_{66}A_{10}$	a_3	b_{25}	ch_2	https://doi.org/10.1016/j.autcon.2010.05.004	$th_{83}A_{41}$		b_{60}	ch_2	https://link.springer.com/article/10.1007/s10098-020-01922-y
$th_{92}A_{44}$	a_2	b_{24}	ch_2	https://doi.org/10.1109/carpi.2010.5624474	$th_{155}A_{37}$		b_{50}	ch_2	https://doi.org/10.1016/j.autcon.2019.102988
$th_{51}A_{22}$		b_{30}	ch_2	https://doi.org/10.1016/j.matpr.2019.12.381	$th_{158}A_{36}$	a_2	b_{27}	ch_1	https://doi.org/10.14313/jamris/1-2020/1