1 Selected Publications

Table 1: Research questions and adopted approaches

Research questions	**Adopted approaches**	**Number of Publications**	**References**
SRQ1	Synchronization Mechanisms, Types of Transceivers and Medium Access Policies	110	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48] [49] [50] [51] [52] [53] [54] [55] [56] [57] [58] [59] [60] [61] [62] [63] [64] [65] [66] [67] [68] [69] [70] [71] [72] [73] [74] [75] [76] [77] [78] [79] [80] [81] [82] [83] [84] [85] [86] [87] [88] [89] [90] [91] [92] [93] [94] [95] [96] [97] [98] [99] [100] [100] [101] [102] [103] [104] [105] [106] [107] [108] [80]
SRQ2	Traffic Prioritization and Medium Access Policies	121	[2] [3] [4] [109] [110] [5] [6] [7] [8] [111] [10] [11] [12] [13] [14] [112] [113] [15] [17] [18] [19] [20] [114] [21] [22] [23] [24] [25] [26] [27] [28] [30] [31] [32] [33] [34] [115] [35] [116] [36] [37] [117] [39] [118] [40] [41] [42] [119] [120] [43] [44] [45] [46] [48] [49] [121] [50] [51] [52] [53] [122] [55] [56] [123] [57] [58] [124] [59] [60] [61] [62] [63] [64] [65] [66] [125] [67] [68] [126] [69] [127] [70] [71] [72] [73] [74] [75] [76] [77] [78] [79] [80] [128] [83] [84] [86] [87] [88] [89] [90] [91] [92] [93] [94] [95] [96] [98] [99] [100] [100] [101] [107] [102] [104] [129] [130] [106] [107] [108] [80] [131]
SRQ3	Traffic Prioritization, Types of Transceivers and Medium Access Policies	125	[1] [2] [3] [4] [109] [110] [5] [7] [111] [132] [9] [12] [13] [14] [112] [113] [133] [15] [16] [18] [19] [134] [20] [114] [23] [135] [24] [25] [26] [28] [29] [30] [32] [33] [34] [115] [136] [137] [116] [36] [37] [117] [118] [40] [41] [119] [120] [44] [45] [46] [47] [138] [48] [49] [121] [50] [139] [51] [53] [122] [54] [140] [141] [55] [123] [57] [58] [124] [142] [61] [63] [64] [65] [125] [67] [143] [68] [144] [126] [69] [127] [70] [145] [72] [73] [74] [75] [76] [79] [80] [128] [82] [83] [84] [85] [86] [87] [88] [89] [90] [91] [92] [93] [94] [96] [97] [98] [99] [100] [100] [101] [146] [107] [102] [103] [147] [104] [148] [129] [130] [105] [107] [108] [80] [131]
SRQ4	Traffic Prioritization and Medium Access Policies	72	[3] [4] [109] [110] [7] [12] [14] [112] [16] [21] [29] [30] [32] [34] [115] [36] [117] [38] [39] [118] [40] [149] [42] [120] [43] [46] [47] [48] [121] [51] [52] [53] [54] [55] [56] [57] [58] [124] [59] [60] [61] [62] [63] [66] [67] [126] [69] [70] [72] [73] [75] [77] [78] [80] [81] [82] [83] [84] [86] [89] [90] [93] [95] [99] [101] [107] [103] [104] [129] [130] [105] [131]
SRQ5	Types of Transceivers, Traffic Prioritization and Medium Access Policies	83	[1] [3] [6] [8] [111] [113] [17] [114] [21] [22] [23] [27] [31] [34] [115] [35] [116] [36] [37] [117] [38] [39] [118] [41] [42] [119] [120] [43] [46] [47] [49] [121] [51] [52] [122] [54] [55] [56] [123] [58] [124] [59] [60] [61] [62] [63] [65] [66] [125] [126] [69] [127] [70] [71] [73] [74] [76] [77] [78] [79] [80] [128] [81] [83] [84] [85] [86] [87] [88] [90] [91] [93] [95] [97] [98] [99] [100] [101] [107] [129] [130] [80] [131]

Table 2: Selected Publications

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[1]	Emergency traffic, Energy Consumption	SRQ1,SRQ3, SRQ5	Until Two	Beacon on demand	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[2]	Colision, Disconnection, Energy Consumption	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6
[3]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Wake-up radio	Contention-free	IEEE 802.15.4
[4]	Colision, Dynamic traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4	Until Two	No Beacon	Wake-up radio	Contention-based	IEEE 802.15.4
[109]	Dynamic traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[110]	Dynamic traffic, Energy Consumption, Latency, Overload	SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[5]	Disconnection, Fading	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[6]	Emergency traffic, Latency	SRQ1, SRQ2, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6
[7]	Colision, Dynamic traffic, Interference	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[8]	Latency	SRQ1, SRQ2, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[111]	Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Wake-up radio	Contention-free	Does not use
[132]	Energy Consumption	SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[9]	Emergency traffic, Energy Consumption	SRQ1, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[10]	Emergency traffic, Latency	SRQ1, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6
[11]	Emergency traffic, Latency	SRQ1, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[12]	Colision, Dynamic traffic	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[13]	Colision	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[14]	Dynamic traffic, Energy Consumption, Fading	SRQ1, SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[112]	Dynamic traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[113]	Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Until Two	Preamble	Ordinary transceiver approach	Contention-based	Does not use
[133]	Energy Consumption	SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[15]	Colision, Interference	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	Does not use
[16]	Dynamic traffic, Energy Consumption	SRQ1, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[17]	Latency	SRQ1, SRQ2, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[18]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[19]	Interference	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[134]	Energy Consumption	SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[20]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	Does not use
[114]	Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[21]	Buffer Overflow, Dynamic traffic, Latency, Overload	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6
[22]	Emergency traffic, Latency	SRQ1, SRQ2, SRQ5	Until Two	Preamble	Ordinary transceiver approach	Contention-based	Does not use
[23]	Disconnection, Energy Consumption, Fading, Interference, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[135]	Energy Consumption	SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6
[24]	Colision, Energy Consumption	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[25]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[26]	Buffer Overflow, Colision	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[27]	Latency	SRQ1, SRQ2, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[28]	Colision, Fading	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6
[29]	Dynamic traffic, Energy Consumption	SRQ1, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[30]	Buffer Overflow, Disconnection, Dynamic traffic, Energy Consumption, Fading, Overload	SRQ1, SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[31]	Latency	SRQ1, SRQ2, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[32]	Colision, Dynamic traffic	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[33]	Interference	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[34]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[115]	Dynamic traffic, Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Directional antennas	Contention-free	IEEE 802.15.4
[35]	Latency	SRQ1, SRQ2, SRQ5	Until Two	No Beacon	Directional antennas	Contention-based	Does not use
[136]	Energy Consumption	SRQ3	Until Two	Preamble	Ordinary transceiver approach	Hybrid	Does not use
[137]	Energy Consumption	SRQ3	Various	No Beacon	Ordinary transceiver approach	Hybrid	Does not use
[116]	Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[36]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[37]	Emergency traffic, Energy Consumption, Interference	SRQ1, SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[117]	Dynamic traffic, Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[38]	Dynamic traffic, Emergency traffic	SRQ1, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[39]	Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[118]	Dynamic traffic, Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[40]	Buffer Overflow, Disconnection, Dynamic traffic, Energy Consumption, Fading, Interference, Overload	SRQ1, SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	ETSI Smart-BAN
[149]	Dynamic traffic	SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6
[41]	Colision, Energy Consumption, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[42]	Dynamic traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[119]	Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[120]	Dynamic traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[43]	Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[44]	Interference	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[45]	Energy Consumption, Interference	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[46]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Wake-up radio	Hybrid	IEEE 802.15.4
[47]	Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Wake-up radio	Hybrid	Does not use
[138]	Energy Consumption	SRQ3	Until Two	Beacon on demand	Wake-up radio	Hybrid	Does not use
[48]	Dynamic traffic, Interference	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[49]	Emergency traffic, Interference	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[121]	Dynamic traffic, Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Beacon on demand	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[50]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[139]	Energy Consumption	SRQ3	Various	Periodic beacon	Directional antennas	Hybrid	IEEE 802.15.6
[51]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[52]	Dynamic traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[53]	Disconnection, Dynamic traffic, Fading	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6
[122]	Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[54]	Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[140]	Energy Consumption	SRQ3	Until Two	Preamble	Ordinary transceiver approach	Contention-free	Does not use

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[141]	Energy Consumption	SRQ3	Until Two	Preamble	Ordinary transceiver approach	Contention-free	Does not use
[55]	Colision, Dynamic traffic, Emergency traffic	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[56]	Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[123]	Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6
[57]	Colision, Dynamic traffic	SRQ1, SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[58]	Colision, Dynamic traffic, Emergency traffic	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[124]	Device Temperature Rise, Dynamic traffic, Emergency traffic, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[59]	Dynamic traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Various	No Beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[60]	Dynamic traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[142]	Energy Consumption	SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[61]	Colision, Dynamic traffic, Emergency traffic	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[62]	Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[63]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[64]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[65]	Colision, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[66]	Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.4
[125]	Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[67]	Colision, Dynamic traffic	SRQ1, SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Wake-up radio	Contention-free	IEEE 802.15.4
[143]	Energy Consumption	SRQ3	Until Two	Beacon on demand	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[68]	Colision, Energy Consumption	SRQ1, SRQ2, SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[144]	Energy Consumption	SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[126]	Dynamic traffic, Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Beacon on demand	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[69]	Colision, Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[127]	Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[70]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6
[145]	Energy Consumption	SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[71]	Emergency traffic, Latency	SRQ1, SRQ2, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[72]	Colision, Dynamic traffic, Fading	SRQ1, SRQ2, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[73]	Buffer Overflow, Dynamic traffic, Emergency traffic, Energy Consumption, Fading	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[74]	Colision, Emergency traffic, Energy Consumption, Interference, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	No Beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[75]	Colision, Dynamic traffic, Overload	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[76]	Colision, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[77]	Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Cognitive Radio	Contention-based	IEEE 802.15.6
[78]	Dynamic traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6
[79]	Emergency traffic, Interference	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[80]	Colision, Dynamic traffic, Emergency traffic	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[128]	Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4
[81]	Dynamic traffic, Emergency traffic	SRQ1, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6
[82]	Dynamic traffic, Energy Consumption	SRQ1, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[83]	Colision, Dynamic traffic, Emergency traffic	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-based	IEEE 802.15.6

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Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[84]	Dynamic traffic, Emergency traffic, Interference	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[85]	Emergency traffic, Energy Consumption	SRQ1, SRQ3, SRQ5	Until Two	No Beacon	Wake-up radio	Contention-free	Does not use
[86]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Wake-up radio	Hybrid	IEEE 802.15.4
[87]	Colision, Emergency traffic, Energy Consumption, Overload	SRQ1, SRQ2, SRQ3, SRQ5	Until Two	Periodic beacon	Wake-up radio	Hybrid	IEEE 802.15.4
[88]	Colision, Emergency traffic, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[89]	Colision, Dynamic traffic	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[90]	Colision, Disconnection, Dynamic traffic, Emergency traffic	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[91]	Colision, Emergency traffic, Energy Consumption, Interference, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[92]	Interference	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[93]	Colision, Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Beacon on demand	Ordinary transceiver approach	Contention-free	IEEE 802.15.4

Continues on the next page

Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[94]	Interference	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[95]	Dynamic traffic, Emergency traffic, Latency	SRQ1, SRQ2, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[96]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Preamble	Ordinary transceiver approach	Contention-free	Does not use
[97]	Emergency traffic, Energy Consumption	SRQ1, SRQ3, SRQ5	Until Two	Periodic beacon	Directional antennas	Hybrid	IEEE 802.15.6
[98]	Colision, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.6
[99]	Colision, Dynamic traffic, Emergency traffic, Energy Consumption	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[100]	Colision, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[100]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Preamble	Wake-up radio	Contention-free	Does not use
[101]	Colision, Dynamic traffic, Emergency traffic, Fading	SRQ1, SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6
[146]	Energy Consumption	SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.6

Continues on the next page

Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[107]	Colision, Dynamic traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Preamble	Ordinary transceiver approach	Contention-based	IEEE 802.15.6
[102]	Colision	SRQ1, SRQ2, SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[103]	Dynamic traffic, Energy Consumption	SRQ1, SRQ3, SRQ4	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[147]	Energy Consumption	SRQ3	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	Does not use
[104]	Colision, Dynamic traffic	SRQ1, SRQ2, SRQ3, SRQ4	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[148]	Energy Consumption	SRQ3	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	Does not use
[129]	Dynamic traffic, Emergency traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[130]	Buffer Overflow, Disconnection, Dynamic traffic, Fading, Interference, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Wake-up radio	Contention-free	IEEE 802.15.4
[105]	Dynamic traffic, Energy Consumption	SRQ1, SRQ3, SRQ4	Until Two	Periodic beacon	Wake-up radio	Hybrid	IEEE 802.15.4
[106]	Disconnection	SRQ1, SRQ2	Until Two	No Beacon	Ordinary transceiver approach	Contention-based	Does not use

Continues on the next page

Table 2 – *Table continuation*

Reference	**Challenges Addressed**	**Research Questions**	**Priorities**	**Synchronization**	**Transceiver**	**Medium Access Policies**	**Communication Standard**
[107]	Colision, Energy Consumption	SRQ1, SRQ2, SRQ3	Until Two	Preamble	Ordinary transceiver approach	Contention-based	Does not use
[108]	Disconnection, Energy Consumption	SRQ1, SRQ2, SRQ3	Various	Beacon on demand	Wake-up radio	Contention-based	IEEE 802.15.6
[80]	Colision, Energy Consumption, Latency	SRQ1, SRQ2, SRQ3, SRQ5	Various	Periodic beacon	Ordinary transceiver approach	Hybrid	IEEE 802.15.4
[131]	Colision, Dynamic traffic, Energy Consumption, Latency	SRQ2, SRQ3, SRQ4, SRQ5	Until Two	Periodic beacon	Ordinary transceiver approach	Contention-free	IEEE 802.15.4

End of table

Table 3: List of publications with respective scores in the quality and relevance criteria

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[150]	No	2	1	1	0,5	0,5	1	Significant	1	0,5	0,5	1	0,5	Very Significant
[151]	No	17	1	1	1	1	1	Very Significant	0	1	0	1	0	Significant
[152]	No	5	0,5	1	0,5	0	1	Significant	0,5	0	0,5	0	1	Little Significant
[153]	No	0	1	0,5	0,5	0	0	Little Significant	0	0,5	0	0	0,5	Significant
[154]	No	4	1	1	0,5	1	0	Little Significant	1	1	1	0,5	0	Very Significant
[1]	Yes	19	0,5	1	0,5	1	1	Very Significant	1	1	0,5	1	0,5	Very Significant
[155]	No	2	0,5	0,5	0,5	1	1	Very Significant	0	1	0,5	0	0	Significant
[156]	No	4	1	1	0	0	0	Little Significant	1	0,5	0,5	1	0,5	Very Significant
[157]	No	4	1	0,5	1	1	1	Very Significant	0,5	0	0,5	0	1	Little Significant

Continues on the next page

Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[2]	Yes	16	1	0,5	0,5	1	1	Very Significant	1	1	0,5	0,5	1	Very Significant
[3]	Yes	77	1	1	1	1	0,5	Very Significant	1	1	1	1	1	Very Significant
[4]	Yes	21	1	1	1	1	1	Very Significant	0,5	1	1	1	1	Very Significant
[109]	Yes	35	0,5	0,5	1	0,5	1	Significant	1	1	1	0,5	0,5	Very Significant
[158]	No	11	1	1	0,5	0	1	Significant	1	0	1	1	0,5	Little Significant
[110]	Yes	10	1	1	1	1	1	Very Significant	1	1	1	0	0,5	Very Significant
[5]	Yes	30	1	0,5	0,5	1	0,5	Very Significant	1	1	0,5	0	1	Significant
[6]	Yes	3	1	1	0,5	1	1	Very Significant	0,5	0,5	0,5	1	0,5	Very Significant
[7]	Yes	21	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[159]	No	4	0,5	1	0,5	0,5	1	Significant	1	1	1	0,5	1	Very Significant
[8]	Yes	33	0,5	0,5	0,5	0,5	1	Significant	0,5	0,5	0,5	0,5	0,5	Little Significant
[111]	Yes	1	0	0.5	0	1	0.5	Significant	0	1	0	0	0.5	Significant
[160]	No	1	0,5	0,5	0,5	0,5	0,5	Little Significant	1	1	0	1	0,5	Very Significant
[132]	Yes	13	1	1	1	1	1	Very Significant	1	1	0,5	0,5	1	Very Significant
[161]	No	0	0	1	0,5	0	1	Significant	1	1	0,5	0	0,5	Significant
[162]	No	3	0	0,5	0	0	1	Significant	0	0,5	1	0	0,5	Little Significant
[163]	No	1	1	1	0,5	1	1	Very Significant	1	1	0	0	0	Significant
[9]	Yes	2	1	1	1	1	1	Very Significant	1	1	0,5	1	0,5	Very Significant
[164]	No	10	1	0,5	1	0	1	Significant	1	0,5	0,5	0,5	1	Very Significant
[165]	No	1	1	1	0,5	0,5	0,5	Little Significant	0,5	0,5	0,5	1	0,5	Very Significant
[166]	No	0	0,5	0,5	0,5	0	0	Little Significant	0	1	0,5	0	0	Significant
[167]	No	0	1	0,5	0,5	1	0,5	Very Significant	1	0,5	0	0	1	Significant
[10]	Yes	6	0,5	0,5	0,5	1	1	Very Significant	1	1	0,5	1	1	Very Significant
[168]	No	2	1	1	1	1	1	Very Significant	0	0	1	0,5	0,5	Little Significant
[169]	No	7	0,5	0,5	0,5	0	0	Little Significant	0,5	0	0,5	1	0,5	Little Significant
[11]	Yes	113	1	1	0,5	1	1	Very Significant	1	0,5	0,5	1	1	Very Significant
[12]	Yes	1	1	0,5	0,5	1	1	Very Significant	0	1	1	0,5	1	Very Significant
[13]	Yes	16	1	1	1	0,5	1	Very Significant	1	1	0,5	0,5	0,5	Very Significant
[170]	No	5	1	1	1	0	1	Significant	0	1	1	1	0,5	Very Significant
[171]	No	0	1	1	1	1	1	Very Significant	0,5	0	1	0	0	Little Significant
[172]	No	7	1	1	0,5	0	1	Significant	1	0	1	1	0,5	Little Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[173]	No	10	1	1	0,5	0,5	0,5	Little Significant	0,5	0,5	1	1	0,5	Very Significant
[174]	No	4	0,5	0,5	0,5	0,5	0,5	Little Significant	1	1	0	0	0,5	Significant
[175]	No	0	1	0,5	1	1	1	Very Significant	1	1	0,5	0	0,5	Significant
[14]	Yes	119	0,5	1	1	1	0,5	Very Significant	0,5	1	1	0	0,5	Significant
[112]	Yes	8	1	1	0,5	1	1	Very Significant	0,5	1	1	0,5	0,5	Very Significant
[176]	No	40	0	0.5	0	0.5	0.5	Significant	0	0	0.5	0.5	0	Little Significant
[177]	No	8	0,5	1	0,5	0,5	0,5	Little Significant	0,5	0,5	1	1	0,5	Very Significant
[178]	No	0	1	0	0	0	1	Significant	0	0	0	0	0	Little Significant
[113]	Yes	195	1	1	0,5	1	1	Very Significant	0,5	0	0	0	0,5	Little Significant
[179]	No	7	0	0	0	0	0,5	Little Significant	0	0	0	0,5	0,5	Little Significant
[180]	No	16	0	1	0,5	0	0	Little Significant	1	1	0	0,5	0	Significant
[181]	No	0	0,5	0,5	0,5	0,5	1	Significant	1	1	0,5	0,5	0,5	Very Significant
[182]	No	16	1	1	1	1	0	Very Significant	1	1	0	0	0,5	Significant
[133]	Yes	31	1	1	1	1	0	Very Significant	0	1	0	0	0	Significant
[183]	No	9	1	0,5	0,5	0,5	0,5	Little Significant	1	0	1	1	0,5	Little Significant
[15]	Yes	28	1	1	1	1	1	Very Significant	0,5	0,5	0	0	1	Significant
[16]	Yes	37	1	0,5	1	1	0	Little Significant	1	1	1	0,5	0,5	Very Significant
[17]	Yes	57	1	1	1	1	1	Very Significant	1	0,5	0,5	0	1	Little Significant
[18]	Yes	35	1	1	1	0,5	1	Very Significant	0,5	1	0	0	0,5	Significant
[184]	No	2	0,5	0,5	0,5	1	1	Very Significant	0	1	0,5	0,5	0,5	Significant
[19]	Yes	51	1	1	0,5	1	0,5	Very Significant	0,5	0	0,5	0	1	Little Significant
[134]	Yes	30	1	1	1	1	1	Very Significant	1	1	0	0	1	Significant
[185]	No	1	0,5	1	1	1	1	Very Significant	1	0	1	0	1	Little Significant
[186]	No	9	1	1	1	1	1	Very Significant	1	0,5	0	0	1	Significant
[20]	Yes	21	1	1	1	0	1	Significant	1	0	0	0	0,5	Little Significant
[187]	No	16	1	0	0,5	1	1	Very Significant	0,5	0,5	0	0	0,5	Significant
[114]	Yes	2	1	1	1	1	1	Very Significant	1	1	0,5	0,5	1	Very Significant
[188]	No	6	0,5	1	0,5	0,5	0,5	Little Significant	1	1	0,5	0,5	1	Very Significant
[189]	No	14	1	1	1	0,5	1	Very Significant	1	1	0	0	1	Significant
[190]	No	0	1	0,5	0,5	0	1	Significant	1	0	0	0	0,5	Little Significant
[191]	No	4	0,5	0,5	0,5	0,5	0,5	Little Significant	1	0	0,5	0,5	0,5	Little Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[21]	Yes	10	1	1	1	1	1	Very Significant	1	1	1	0,5	1	Very Significant
[192]	No	10	1	1	1	1	1	Very Significant	0,5	0,5	1	0	0,5	Little Significant
[22]	Yes	156	0,5	1	1	0	1	Significant	1	0	0,5	1	1	Little Significant
[193]	No	8	1	0,5	0,5	0	0	Little Significant	0	0	0	0	1	Little Significant
[23]	Yes	70	1	0,5	1	1	1	Very Significant	1	1	0,5	0,5	0,5	Very Significant
[194]	No	0	0,5	0,5	1	1	1	Very Significant	1	0	0	0	1	Little Significant
[195]	No	7	1	1	0,5	1	1	Very Significant	1	0	1	0	0	Little Significant
[196]	No	0	0	0,5	0,5	0	0	Little Significant	0	0	1	0,5	0	Little Significant
[197]	No	2	1	1	0,5	0,5	0,5	Little Significant	1	0	0	0	1	Little Significant
[135]	Yes	65	1	1	1	1	1	Very Significant	1	1	0	0	0,5	Significant
[198]	No	2	0	0	0,5	1	0	Little Significant	0,5	1	0	0	0,5	Significant
[24]	Yes	240	1	1	1	1	1	Very Significant	1	1	0,5	0	0,5	Significant
[25]	Yes	21	1	0,5	0,5	1	1	Very Significant	0,5	0,5	0,5	0	1	Little Significant
[199]	No	9	0,5	0,5	0,5	1	1	Very Significant	1	1	0	0	0,5	Significant
[200]	No	2	0	0,5	0,5	1	0	Little Significant	0,5	0	0,5	0	0,5	Little Significant
[201]	No	8	0,5	1	0	0,5	0	Little Significant	0,5	0,5	0,5	1	0,5	Very Significant
[26]	Yes	23	1	1	1	1	1	Very Significant	1	0,5	0	0	1	Significant
[202]	No	6	1	1	1	0	1	Significant	1	1	0,5	0,5	0,5	Very Significant
[203]	No	3	1	1	1	0	0	Little Significant	0,5	1	1	0	0	Significant
[204]	No	12	1	1	1	0,5	0	Little Significant	0	0,5	0,5	0	0	Significant
[205]	No	2	0	0,5	0	0	1	Significant	0	0,5	0,5	0	0,5	Significant
[206]	No	3	0,5	0,5	0,5	0,5	0,5	Little Significant	0,5	0,5	0,5	1	0,5	Very Significant
[207]	No	8	1	0,5	0,5	1	1	Very Significant	0,5	1	0,5	0	1	Significant
[208]	No	5	0,5	0,5	0,5	0,5	1	Significant	0,5	0	0	0	0,5	Little Significant
[27]	Yes	28	0,5	0,5	0,5	0	1	Significant	0,5	0,5	0	0,5	0,5	Significant
[209]	No	0	1	0,5	1	1	0,5	Very Significant	1	1	0,5	0	0,5	Significant
[28]	Yes	34	1	1	0,5	1	1	Very Significant	1	1	0,5	0	1	Significant
[210]	No	12	0,5	1	0,5	0,5	0,5	Little Significant	1	1	0,5	0,5	1	Very Significant
[211]	No	1	0,5	0,5	0,5	0,5	0	Little Significant	0	1	0	0	0,5	Significant
[212]	No	4	0	0,5	0,5	1	0,5	Little Significant	1	1	0	0	0,5	Significant
[213]	No	18	1	1	1	1	1	Very Significant	1	0,5	0,5	0	1	Little Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[29]	Yes	32	1	1	0	0,5	1	Significant	1	1	0,5	0,5	0,5	Very Significant
[30]	Yes	2	1	1	1	1	1	Very Significant	1	1	1	0	1	Very Significant
[131]	Yes	0	1	1	1	1	1	Very Significant	1	1	1	0	1	Very Significant
[31]	Yes	21	1	1	0,5	0,5	0	Little Significant	1	0,5	0	0	1	Significant
[32]	Yes	22	0,5	1	1	1	1	Very Significant	0,5	1	1	0,5	1	Very Significant
[214]	No	0	0,5	1	0,5	1	1	Very Significant	1	1	0	0	1	Significant
[215]	No	20	0.5	0	0.5	0	0.5	Significant	0.5	0	0	0	0	Little Significant
[33]	Yes	34	0,5	1	0,5	0,5	0,5	Little Significant	1	0,5	0,5	0	1	Little Significant
[34]	Yes	52	0,5	1	1	1	0,5	Very Significant	0,5	0	0,5	1	1	Little Significant
[216]	No	13	1	0,5	0,5	0	0	Little Significant	1	0	0	0	0,5	Little Significant
[115]	Yes	23	1	1	0,5	0	1	Significant	1	1	1	1	0,5	Very Significant
[35]	Yes	25	1	0,5	1	1	0,5	Very Significant	1	0	0	0	1	Little Significant
[217]	No	2	1	1	1	0	1	Significant	1	1	0,5	0,5	0	Significant
[218]	No	1	0	0,5	0,5	0	1	Significant	0,5	0	1	0	0	Little Significant
[136]	Yes	66	1	1	1	0	1	Significant	0	1	0	0	0	Significant
[137]	Yes	28	0,5	1	1	1	1	Very Significant	0	1	0	0	0	Significant
[219]	No	0	0,5	0,5	0,5	0	0,5	Little Significant	0,5	0,5	0	0	0	Significant
[220]	No	7	1	0,5	0,5	0	0,5	Significant	1	0	0,5	0,5	0,5	Little Significant
[221]	No	10	0,5	1	0,5	0	0	Little Significant	0,5	1	1	0,5	0	Very Significant
[222]	No	7	1	1	1	0	1	Significant	0	0,5	0,5	0,5	0,5	Little Significant
[223]	No	6	1	1	1	0	0,5	Significant	1	1	0,5	0,5	0,5	Very Significant
[224]	No	1	1	0,5	0,5	0	0,5	Significant	0,5	0	0,5	1	1	Little Significant
[116]	Yes	34	0,5	0,5	0,5	0	0	Little Significant	0,5	1	0,5	1	1	Very Significant
[225]	No	0	1	1	0,5	0	0,5	Significant	0,5	0	0	0	0,5	Little Significant
[36]	Yes	14	1	1	0,5	1	0,5	Very Significant	1	1	1	1	1	Very Significant
[37]	Yes	1	1	1	1	1	0,5	Very Significant	1	1	0	1	1	Very Significant
[226]	No	8	1	1	0,5	1	0,5	Very Significant	1	1	0	0	1	Significant
[227]	No	4	1	1	1	1	0,5	Very Significant	1	1	0,5	0	0,5	Significant
[228]	No	0	1	1	1	1	0	Very Significant	0	0	1	1	0,5	Little Significant
[117]	Yes	14	1	1	0,5	1	0,5	Very Significant	1	1	1	1	1	Very Significant
[38]	Yes	16	1	1	1	1	1	Very Significant	1	1	1	1	0,5	Very Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[39]	Yes	11	1	0,5	0,5	1	1	Very Significant	1	0,5	1	1	1	Very Significant
[229]	No	2	0,5	0,5	1	0,5	1	Significant	0	0,5	0	1	0,5	Little Significant
[118]	Yes	80	0,5	1	0,5	0	0	Little Significant	0,5	0	1	1	0	Little Significant
[230]	No	0	1	1	1	0,5	0	Little Significant	1	1	0,5	0,5	0,5	Very Significant
[231]	No	1	1	1	1	1	1	Very Significant	0,5	0	1	1	1	Little Significant
[232]	No	15	1	1	1	1	1	Very Significant	1	1	0	0	1	Significant
[40]	Yes	3	1	1	1	1	1	Very Significant	1	1	1	0	0,5	Very Significant
[149]	Yes	25	1	1	0,5	0	0	Little Significant	0	0	1	0	0,5	Little Significant
[41]	Yes	38	0,5	0,5	0,5	0	1	Significant	0	1	0,5	0	0	Significant
[233]	No	10	1	1	1	1	1	Very Significant	1	0	1	0	0,5	Little Significant
[42]	Yes	45	1	1	0,5	1	1	Very Significant	0,5	1	1	0,5	0,5	Very Significant
[119]	Yes	24	1	1	1	1	0,5	Very Significant	1	1	0,5	0	0,5	Significant
[234]	No	4	1	0,5	1	0,5	0,5	Little Significant	1	1	0,5	0,5	1	Very Significant
[120]	Yes	17	1	1	1	1	1	Very Significant	1	1	1	0,5	1	Very Significant
[43]	Yes	5	1	1	0,5	1	1	Very Significant	0,5	1	1	1	1	Very Significant
[235]	No	0	0,5	0,5	0,5	0,5	0,5	Little Significant	1	0	0,5	1	0	Little Significant
[44]	Yes	24	1	1	0,5	0,5	1	Significant	0,5	0,5	0,5	0	0,5	Significant
[236]	No	10	1	1	1	1	1	Very Significant	0,5	0,5	0	0	0,5	Significant
[237]	No	7	1	0,5	0,5	1	1	Very Significant	0,5	0	0	0	1	Little Significant
[45]	Yes	31	1	1	0,5	1	1	Very Significant	1	1	0,5	0,5	1	Very Significant
[238]	No	18	1	1	1	0	1	Significant	1	0	1	0	0,5	Little Significant
[239]	No	9	0,5	0,5	0,5	0	0	Little Significant	0,5	1	0	0	0,5	Significant
[240]	No	0	1	1	1	1	1	Very Significant	1	1	0,5	0	1	Significant
[46]	Yes	10	1	1	1	1	1	Very Significant	1	1	1	1	0,5	Very Significant
[47]	Yes	43	1	1	0,5	1	0	Little Significant	1	1	1	1	1	Very Significant
[241]	No	11	0,5	0	0	0	1	Significant	0	1	0	0	0	Significant
[138]	Yes	27	1	1	0,5	1	1	Very Significant	1	1	0	0	0	Significant
[242]	No	18	1	0,5	1	1	1	Very Significant	0,5	0	0,5	0,5	1	Little Significant
[48]	Yes	13	1	0,5	1	1	1	Very Significant	1	1	1	0	1	Very Significant
[49]	Yes	28	1	1	1	1	1	Very Significant	1	0,5	0,5	1	1	Very Significant
[243]	No	12	0	0,5	0	0	0	Little Significant	0,5	0,5	0	0	0,5	Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[121]	Yes	15	0,5	0,5	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[50]	Yes	33	1	0,5	0,5	0,5	0,5	Little Significant	0,5	0	0,5	0	0,5	Little Significant
[139]	Yes	21	1	1	1	1	1	Very Significant	1	1	0,5	0,5	0,5	Very Significant
[244]	No	8	1	0,5	1	1	0,5	Very Significant	1	0	0,5	1	1	Little Significant
[245]	No	6	1	1	1	1	1	Very Significant	1	1	0,5	0	1	Significant
[51]	Yes	19	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[52]	Yes	9	1	1	1	1	1	Very Significant	1	1	1	1	0,5	Very Significant
[246]	No	17	1	1	1	1	0,5	Very Significant	0,5	1	0	0	0,5	Significant
[53]	Yes	144	1	1	1	1	1	Very Significant	1	1	1	0	1	Very Significant
[247]	No	6	1	1	1	0,5	0	Little Significant	0,5	0,5	0	0	0	Significant
[122]	Yes	7	1	1	1	1	1	Very Significant	0,5	1	0,5	0,5	1	Very Significant
[54]	Yes	45	1	1	0,5	0,5	1	Significant	1	1	1	1	0,5	Very Significant
[248]	No	0	0,5	0,5	0,5	0	0,5	Little Significant	0	1	1	0	1	Significant
[249]	No	19	1	0.5	0.5	0.5	1	Significant	0.5	0	1	1	0.5	Significant
[140]	Yes	345	0,5	1	1	0,5	0,5	Little Significant	0	1	0	0	0	Significant
[141]	Yes	123	1	1	1	0,5	0,5	Very Significant	0	1	0	0	0	Significant
[55]	Yes	26	0,5	1	1	1	1	Very Significant	1	1	1	0	1	Very Significant
[56]	Yes	7	1	1	1	1	0,5	Very Significant	1	0	1	1	1	Very Significant
[250]	No	1	1	1	1	1	1	Very Significant	0,5	0	1	1	0,5	Little Significant
[251]	No	16	1	1	1	0	0	Little Significant	1	0	0	0	0,5	Little Significant
[123]	Yes	35	1	0,5	1	1	1	Very Significant	0,5	1	0,5	1	1	Very Significant
[57]	Yes	14	1	0,5	0,5	1	1	Very Significant	1	0,5	1	0,5	1	Very Significant
[58]	Yes	34	1	1	1	1	1	Very Significant	1	1	1	1	0,5	Very Significant
[124]	Yes	10	1	1	1	1	1	Very Significant	1	0,5	1	1	1	Very Significant
[59]	Yes	48	1	1	1	1	1	Very Significant	1	1	1	0,5	1	Very Significant
[252]	No	19	0,5	0	0	0	1	Significant	0,5	0,5	0	0	0,5	Significant
[253]	No	11	0,5	1	1	1	0,5	Very Significant	0,5	0	1	0	0,5	Little Significant
[60]	Yes	25	1	1	1	1	1	Very Significant	1	0	1	0	1	Little Significant
[254]	No	18	1	1	1	1	1	Very Significant	1	0	1	0	0	Little Significant
[142]	Yes	0	1	1	1	1	1	Very Significant	1	1	0,5	0,5	1	Very Significant
[255]	No	3	1	1	1	1	1	Very Significant	1	1	0	0	0	Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[256]	No	6	0,5	0,5	1	1	0,5	Very Significant	1	0,5	0	0	1	Significant
[257]	No	15	0,5	0,5	1	1	0,5	Very Significant	0,5	0	1	1	0,5	Little Significant
[258]	No	2	1	1	1	1	1	Very Significant	1	1	0,5	0	1	Significant
[61]	Yes	7	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[108]	Yes	2	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[259]	No	2	0,5	0,5	0,5	0,5	0,5	Little Significant	1	0	1	0,5	0	Little Significant
[260]	No	0	1	0,5	1	1	1	Very Significant	1	0	0,5	0,5	1	Little Significant
[261]	No	1	0,5	0,5	1	1	0	Little Significant	1	0	0	0	0	Little Significant
[262]	No	14	0,5	1	1	1	1	Very Significant	1	0	0	0	0	Little Significant
[263]	No	2	0,5	0,5	0,5	0	0	Little Significant	0,5	1	1	1	1	Very Significant
[62]	Yes	11	1	0,5	1	1	1	Very Significant	1	0	1	1	1	Very Significant
[264]	No	0	1	0,5	0,5	0,5	1	Significant	1	1	0,5	1	1	Very Significant
[63]	Yes	19	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[265]	No	0	1	0,5	1	1	0,5	Very Significant	1	0	0	0	0,5	Little Significant
[105]	Yes	1	1	1	1	1	1	Very Significant	0,5	1	1	0,5	0,5	Very Significant
[64]	Yes	33	1	1	0,5	1	1	Very Significant	1	0	0,5	0,5	1	Little Significant
[266]	No	18	1	0,5	1	0,5	1	Significant	0,5	1	1	0,5	0,5	Very Significant
[267]	No	1	1	1	1	1	1	Very Significant	0	1	0,5	0	0,5	Significant
[268]	No	0	1	1	1	1	1	Very Significant	1	0	1	0,5	0	Little Significant
[65]	Yes	485	1	1	1	0	1	Significant	1	1	0,5	1	0,5	Very Significant
[66]	Yes	25	1	1	1	1	1	Very Significant	1	1	1	1	0,5	Very Significant
[130]	Yes	19	1	1	1	1	1	Very Significant	1	0	0	0	0,5	Significant
[269]	No	3	1	0,5	0,5	0,5	0,5	Little Significant	0	1	0	0	0	Significant
[270]	No	0	1	1	1	1	1	Very Significant	1	1	0	0	1	Significant
[271]	No	4	1	0,5	0,5	1	1	Very Significant	1	1	0,5	0	0,5	Significant
[272]	No	8	1	0,5	0,5	0,5	0	Little Significant	0	0	1	0	0	Little Significant
[273]	No	7	0,5	0,5	0,5	0,5	0,5	Little Significant	0	0	0,5	0	0,5	Little Significant
[274]	No	0	1	1	0,5	1	1	Very Significant	1	1	0,5	0	1	Significant
[275]	No	8	1	0,5	1	1	1	Very Significant	1	1	0,5	0	1	Significant
[276]	No	12	1	1	1	1	1	Very Significant	0	1	0,5	0	0,5	Significant
[125]	Yes	32	0,5	0,5	0,5	1	1	Very Significant	0,5	1	0,5	0	0,5	Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[277]	No	12	1	0,5	0,5	0,5	0	Little Significant	0,5	1	0,5	0	0,5	Significant
[67]	Yes	5	1	0,5	0,5	1	1	Very Significant	1	1	1	1	1	Very Significant
[143]	Yes	92	1	1	0,5	1	1	Very Significant	0,5	1	0,5	0,5	1	Very Significant
[68]	Yes	56	1	1	1	1	1	Very Significant	0,5	1	0,5	0	0,5	Significant
[278]	No	1	0,5	1	1	1	0	Little Significant	0	1	1	1	0,5	Very Significant
[279]	No	2	1	1	1	1	0	Significant	0	1	0	0	0	Little Significant
[280]	No	1	1	1	0,5	0,5	0,5	Little Significant	1	0,5	1	0,5	0,5	Very Significant
[281]	No	14	1	1	0,5	0	1	Significant	1	0	0,5	1	1	Little Significant
[144]	Yes	98	1	0,5	1	1	1	Very Significant	1	1	0	0	1	Significant
[282]	No	1	1	0,5	0,5	0,5	1	Significant	0,5	0,5	0,5	0,5	0,5	Little Significant
[283]	No	4	0,5	0,5	0	0	0,5	Little Significant	0	0,5	0,5	0	0,5	Significant
[284]	No	2	1	1	1	1	0,5	Very Significant	1	1	0,5	0	1	Significant
[285]	No	2	0	0,5	0	1	0	Little Significant	0	0,5	0	0	0	Significant
[126]	Yes	29	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[69]	Yes	58	1	1	1	1	0,5	Very Significant	1	1	1	1	1	Very Significant
[286]	No	5	1	0,5	0,5	0	1	Significant	1	0,5	0,5	1	0,5	Very Significant
[127]	Yes	47	1	0,5	0,5	0	1	Significant	0,5	1	0,5	1	0,5	Very Significant
[287]	No	3	1	1	0,5	0,5	0,5	Little Significant	1	1	0,5	1	1	Very Significant
[288]	No	3	0	0	0	0	0	Little Significant	0	0	0	0	0	Little Significant
[129]	Yes	0	1	1	1	1	1	Very Significant	1	1	1	0,5	1	Very Significant
[289]	No	17	1	1	0,5	0,5	1	Significant	1	0,5	1	1	1	Very Significant
[290]	No	0	1	1	1	0	1	Significant	1	1	0	0	0	Significant
[70]	Yes	20	1	1	1	1	1	Very Significant	1	0,5	1	1	1	Very Significant
[145]	Yes	6	0,5	1	0,5	1	1	Very Significant	1	1	0,5	0,5	1	Very Significant
[291]	No	0	0,5	1	0,5	1	0,5	Very Significant	0,5	0	1	0	0	Little Significant
[292]	No	0	1	1	0,5	0,5	1	Significant	1	1	0,5	1	0,5	Very Significant
[71]	Yes	4	1	1	1	1	0,5	Very Significant	0,5	1	0,5	1	1	Very Significant
[293]	No	2	0,5	0,5	0	0,5	0,5	Little Significant	0,5	0,5	0,5	0,5	0,5	Little Significant
[72]	Yes	24	0,5	1	1	1	1	Very Significant	1	1	1	0,5	0,5	Very Significant
[294]	No	14	1	1	1	1	1	Very Significant	1	1	0	0	1	Significant
[73]	Yes	61	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[295]	No	1	0,5	1	0,5	1	0,5	Very Significant	0,5	0	0,5	1	1	Little Significant
[296]	No	4	0,5	0,5	0,5	0,5	0,5	Little Significant	0,5	0,5	0,5	1	0,5	Very Significant
[297]	No	4	0,5	1	1	0,5	0,5	Little Significant	0,5	0,5	0,5	1	0,5	Very Significant
[74]	Yes	4	1	0,5	1	1	1	Very Significant	0,5	1	0,5	1	0,5	Very Significant
[75]	Yes	63	1	1	0,5	0,5	0,5	Little Significant	1	1	1	0,5	0,5	Very Significant
[298]	No	0	0,5	0,5	0,5	0,5	0	Little Significant	0	0	0,5	0	0,5	Little Significant
[76]	Yes	24	0,5	1	1	1	1	Very Significant	1	0	1	0	1	Little Significant
[77]	Yes	10	1	0,5	1	1	1	Very Significant	0	1	1	1	0	Very Significant
[299]	No	5	1	0,5	1	1	1	Very Significant	0,5	0	0,5	0,5	1	Little Significant
[300]	No	1	1	1	0,5	1	1	Very Significant	1	0,5	0	0	1	Significant
[301]	No	10	0,5	1	1	1	1	Very Significant	1	0	1	0	1	Little Significant
[78]	Yes	1	1	1	1	1	1	Very Significant	1	1	1	0,5	1	Very Significant
[79]	Yes	49	1	1	1	1	1	Very Significant	0	0,5	0,5	1	1	Very Significant
[302]	No	8	1	1	1	1	1	Very Significant	0,5	1	0	0	1	Significant
[80]	Yes	40	1	1	1	1	0	Very Significant	0,5	0,5	1	1	0,5	Very Significant
[303]	No	7	1	0,5	0,5	1	0	Little Significant	1	1	0	0	0,5	Significant
[304]	No	1	0	1	0,5	1	0,5	Little Significant	0	1	0	0	0,5	Significant
[305]	No	0	1	0,5	0,5	0	0,5	Significant	1	1	0,5	0	0	Significant
[306]	No	0	0	0	0	0,5	1	Little Significant	0	0	0	0	0	Little Significant
[128]	Yes	12	1	1	1	1	1	Very Significant	0,5	0,5	1	1	1	Very Significant
[307]	No	5	1	1	1	0	1	Significant	0,5	0,5	1	1	0,5	Very Significant
[308]	No	6	1	0,5	1	1	0	Little Significant	0	1	0,5	0	0,5	Significant
[81]	Yes	33	1	1	1	1	1	Very Significant	1	1	0	0	1	Significant
[309]	No	4	1	1	1	1	1	Very Significant	0	1	0	0	0,5	Significant
[310]	No	1	1	0,5	1	0,5	0	Little Significant	1	1	0	0	1	Significant
[311]	No	1	0,5	0,5	0,5	0,5	0	Little Significant	0	1	0	0	0	Significant
[312]	No	0	0	1	1	0	0	Little Significant	0,5	1	0	0	0,5	Significant
[313]	No	0	0	0	0,5	0,5	0	Little Significant	0,5	1	0	0	0,5	Significant
[82]	Yes	154	1	1	1	0,5	0,5	Very Significant	1	1	1	0,5	1	Very Significant
[314]	No	6	0,5	0,5	0	0,5	0,5	Little Significant	0,5	0,5	0	0	0,5	Significant
[83]	Yes	9	1	0,5	1	1	1	Very Significant	0,5	0,5	1	1	0,5	Very Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[315]	No	2	1	1	0	0	0	Little Significant	0,5	0	0	0,5	0,5	Little Significant
[84]	Yes	16	1	1	1	1	1	Very Significant	1	0,5	1	1	1	Very Significant
[316]	No	15	0	0	0,5	1	0,5	Little Significant	0,5	0	0,5	0	0,5	Little Significant
[317]	No	7	1	0	0,5	0	1	Significant	1	1	0	0	0,5	Significant
[85]	Yes	58	1	1	0,5	1	1	Very Significant	1	1	0	1	1	Very Significant
[86]	Yes	145	1	1	1	1	0,5	Very Significant	1	1	1	1	1	Very Significant
[87]	Yes	23	1	0	0,5	1	1	Very Significant	1	0	1	1	1	Very Significant
[88]	Yes	8	1	0,5	1	1	0,5	Very Significant	0,5	1	0,5	1	1	Very Significant
[89]	Yes	26	1	0,5	1	1	1	Very Significant	1	1	1	0,5	1	Very Significant
[90]	Yes	47	1	1	1	1	1	Very Significant	0,5	0,5	1	1	1	Very Significant
[318]	No	13	0,5	0,5	0,5	1	1	Very Significant	1	1	0	0	0	Significant
[91]	Yes	33	1	0,5	1	1	1	Very Significant	1	1	0,5	1	1	Very Significant
[319]	No	2	0,5	1	0,5	0,5	0,5	Little Significant	0,5	1	0,5	0	1	Significant
[320]	No	2	1	1	1	1	0	Very Significant	0	1	0	0	0	Significant
[321]	No	1	0,5	0,5	1	0,5	1	Significant	1	0,5	0,5	0,5	1	Very Significant
[322]	No	0	0,5	0,5	0,5	1	0,5	Little Significant	1	1	1	0,5	0,5	Very Significant
[323]	No	6	1	0,5	0,5	1	0	Little Significant	0,5	0,5	1	1	0,5	Very Significant
[106]	Yes	20	1	1	1	0,5	1	Very Significant	1	1	0	0	0	Significant
[92]	Yes	28	1	0,5	1	0	0,5	Significant	1	0,5	0,5	0,5	1	Very Significant
[93]	Yes	51	1	1	0,5	1	0,5	Very Significant	1	1	1	1	0,5	Very Significant
[94]	Yes	4	1	1	1	1	1	Very Significant	1	1	0,5	0,5	1	Very Significant
[324]	No	43	1	1	1	0.5	1	Significant	0	1	0	0	0	Little Significant
[95]	Yes	101	0,5	1	0,5	0,5	1	Significant	1	0,5	1	1	1	Very Significant
[96]	Yes	22	0,5	0,5	0	0	1	Significant	0,5	0	0	0	0,5	Little Significant
[97]	Yes	10	1	0,5	1	1	0,5	Very Significant	1	1	0,5	1	0,5	Very Significant
[98]	Yes	24	1	1	1	1	1	Very Significant	0,5	1	0,5	1	0	Very Significant
[325]	No	3	1	1	0,5	1	1	Very Significant	0,5	0	0,5	1	1	Little Significant
[99]	Yes	49	1	1	1	1	1	Very Significant	1	1	1	1	1	Very Significant
[326]	No	8	1	0,5	1	0,5	1	Significant	1	0,5	1	0	0,5	Little Significant
[327]	No	14	0,5	0,5	0	0,5	0,5	Little Significant	1	1	0	0	0,5	Significant
[100]	Yes	85	0,5	1	1	1	0,5	Very Significant	1	1	0,5	0,5	1	Very Significant

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Table 3 – *Table continuation*

Reference	Selected	Citation	Quality Criteria					Cluster QC	Relevance Criteria					Cluster RC
			QC1	QC2	QC3	QC4	QC5		RC1	RC2	RC3	RC4	RC5	
[328]	Yes	30	1	1	0	0	1	Significant	0	1	0	0	0	Significant
[101]	Yes	6	1	1	1	1	1	Very Significant	1	0	1	1	1	Very Significant
[329]	No	11	0,5	0,5	0,5	0,5	0,5	Little Significant	0	1	1	0	0,5	Significant
[146]	Yes	12	1	1	1	0,5	0,5	Very Significant	0,5	1	0,5	0,5	1	Very Significant
[330]	No	10	0,5	1	1	1	1	Very Significant	1	1	0,5	0	1	Significant
[331]	No	0	1	1	1	1	1	Very Significant	1	1	0	0	1	Significant
[332]	No	1	0,5	0,5	0,5	1	0,5	Little Significant	1	0	0	0	0	Little Significant
[107]	Yes	43	1	1	1	1	1	Very Significant	0,5	1	1	0	1	Very Significant
[102]	Yes	29	0	0,5	1	1	0,5	Little Significant	0,5	1	0	0	0,5	Significant
[148]	Yes	0	1	1	1	1	1	Very Significant	0	1	1	1	0,5	Very Significant
[103]	Yes	8	1	0,5	1	1	1	Very Significant	1	1	1	0,5	1	Very Significant
[333]	No	4	1	0,5	0,5	0,5	0	Little Significant	1	0	0,5	0	0,5	Little Significant
[334]	No	1	1	1	1	1	1	Very Significant	1	0,5	0,5	0	1	Little Significant
[335]	No	4	1	1	0,5	0	1	Significant	0,5	0	0	0	0,5	Little Significant
[147]	Yes	38	1	1	1	0	0,5	Significant	1	1	0,5	0,5	0,5	Very Significant
[104]	Yes	29	1	1	1	1	0,5	Very Significant	1	0	1	0	1	Little Significant
[336]	No	9	1	1	0,5	0,5	1	Significant	1	0,5	1	1	1	Very Significant

End of table

References

[1] A. Ahmad, N. Javaid, Z. A. Khan, M. Imran, and M. Alnuem, "iA-MAC: Improved Adaptive Medium Access Control protocol for Wireless Body Area Networks," in *2014 14th International Symposium on Communications and Information Technologies (ISCIT)*, pp. 156–160, IEEE, sep 2014.

[2] M. M. Alam, D. Ben Arbia, and E. Ben Hamida, "Joint throughput and channel aware (TCA) dynamic scheduling algorithm for emerging wearable applications," in *2016 IEEE Wireless Communications and Networking Conference*, vol. 2016-Septe, pp. 1–6, IEEE, apr 2016.

[3] M. Al Ameen, N. Ullah, M. S. Chowdhury, S. R. Islam, and K. Kwak, "A power efficient MAC protocol for wireless body area networks," *EURASIP Journal on Wireless Communications and Networking*, vol. 2012, p. 33, dec 2012.

[4] M. Al Ameen and C. Hong, "An On-Demand Emergency Packet Transmission Scheme for Wireless Body Area Networks," *Sensors*, vol. 15, pp. 30584–30616, dec 2015.

[5] A. Alkhayyat and N. A. Habeeb, "A Cooperative MAC Aware Network Coding toward Improving Throughput Wireless Body Area Network," in *2019 2nd Scientific Conference of Computer Sciences (SCCS)*, pp. 182–187, IEEE, IEEE, mar 2019.

[6] M. Ambigavathi and D. Sridharan, "Low-Delay Channel Access Technique for Critical Data Transmission in Wireless Body Area Network," in *Communications in Computer and Information Science*, vol. 905, pp. 144–153, Springer, 2018.

[7] M. Ambigavathi and D. Sridharan, "Traffic Priority Based Channel Assignment Technique for Critical Data Transmission in Wireless Body Area Network," *Journal of Medical Systems*, vol. 42, p. 206, nov 2018.

[8] M. Ambigavathi and D. Sridharan, "Energy efficient and load balanced priority queue algorithm for Wireless Body Area Network," *Future Generation Computer Systems*, vol. 88, pp. 586–593, 2018.

[9] B. B. Azzouz, B. Abdesselam, B. Mohamed, and A. Nacer, "A new reinforced MAC protocol for lifetime prolongation of reliable Wireless Body Area Network," *ECTI Transactions on Electrical Engineering, Electronics, and Communications*, vol. 16, pp. 1–14, apr 2017.

[10] T. Benmansour, T. Ahmed, and S. Moussaoui, "Performance analyses and improvement of the IEEE 802.15.6 CSMA/CA using the low latency queuing," in *2017 IEEE 22nd International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD)*, vol. 2017-June, pp. 1–6, IEEE, jun 2017.

[11] S. Bhandari and S. Moh, "A Priority-Based Adaptive MAC Protocol for Wireless Body Area Networks," *Sensors*, vol. 16, p. 401, mar 2016.

[12] S. Bhandari, K. Singh, S. Moh., and U. Qasim, "Traffic-Aware Medium Access Control Protocol for Wireless Body Area Networks Sabin," *International Journal of Distributed Sensor Networks*, vol. 10, p. 254397, mar 2014.

[13] S. Bhandari and S. Moh, "A Mac Protocol with Dynamic Allocation of Time Slots Based on Traffic Priority in Wireless Body Area Networks," *International journal of Computer Networks & Communications*, vol. 11, pp. 25–41, jul 2019.

[14] Bin Liu, Zhisheng Yan, Chang Wen Chen, B. Liu, Z. Yan, and C. Chen, "MAC protocol in wireless body area networks for E-health: challenges and a context-aware design," *IEEE Wireless Communications*, vol. 20, pp. 64–72, aug 2013.

[15] C. Li, B. Zhang, X. Yuan, S. Ullah, and A. V. Vasilakos, "MC-MAC: a multi-channel based MAC scheme for interference mitigation in WBANs," *Wireless Networks*, vol. 24, no. 3, pp. 719–733, 2018.

[16] C. Li, L. Wang, J. Li, B. Zhen, H.-B. B. Li, and R. Kohno, "Scalable and robust medium access control protocol in wireless body area networks," in *2009 IEEE 20th International Symposium on Personal, Indoor and Mobile Radio Communications*, vol. 2, pp. 2127–2131, IEEE, sep 2009.

[17] C. Li, B. Hao, K. Zhang, Y. Liu, and J. Li, "A novel medium access control protocol with low delay and traffic adaptivity for wireless body area networks," *Journal of Medical Systems*, vol. 35, no. 5, pp. 1265–1275, 2011.

[18] C. Li, J. Li, B. Zhen, H. B. Li, and R. Kohno, "Hybrid Unified-slot Access protocol for wireless body area networks," *International Journal of Wireless Information Networks*, vol. 17, pp. 150–161, dec 2010.

[19] G.-T. Chen, W.-T. Chen, and S.-H. Shen, "2L-MAC: A MAC protocol with two-layer interference mitigation in wireless body area networks for medical applications," in *2014 IEEE International Conference on Communications (ICC)*, pp. 3523–3528, IEEE, jun 2014.

[20] F. Chiti, R. Fantacci, and S. Lappoli, "Contention delay minimization in wireless body sensor networks: A game theoretic perspective," in *GLOBECOM - IEEE Global Telecommunications Conference*, pp. 1–6, IEEE, 2010.

[21] K. Das and S. Moulik, "BOSS: Bargaining-based Optimal Slot Sharing in IEEE 802.15.6-based Wireless Body Area Networks," *IEEE Internet of Things Journal*, pp. 1–1, 2021.

[22] T. O'Donovan, J. O'Donoghue, C. Sreenan, D. Sammon, P. O'Reilly, and K. A. O'Connor, "A context aware wireless body area network (BAN)," in *Proceedings of the 3d International ICST Conference on Pervasive Computing Technologies for Healthcare*, pp. 1–8, IEEE, ICST, 2009.

[23] H. Ben Elhadj, J. Elias, L. Chaari, and L. Kamoun, "A Priority based Cross Layer Routing Protocol for healthcare applications," *Ad Hoc Networks*, vol. 42, pp. 1–18, may 2016.

[24] G. Fang and E. Dutkiewicz, "BodyMAC: Energy efficient TDMA-based MAC protocol for wireless body area networks," in *2009 9th International Symposium on Communications and Information Technology, ISCIT 2009*, pp. 1455–1459, IEEE, IEEE, 2009.

[25] A. Farhad, Y. Zia, S. Farid, and F. B. Hussain, "A traffic aware dynamic super-frame adaptation algorithm for the IEEE 802.15.4 based networks," in *APWiMob 2015 - IEEE Asia Pacific Conference on Wireless and Mobile*, pp. 261–266, IEEE, aug 2016.

[26] H. Fourati, H. Idoudi, and L. A. Saidane, "Intelligent slots allocation for dynamic differentiation in IEEE 802.15.6 CSMA/CA," *Ad Hoc Networks*, vol. 72, pp. 27–43, apr 2018.

[27] K. Gundogdu and A. Calhan, "An Implementation of Wireless Body Area Networks for Improving Priority Data Transmission Delay," *Journal of Medical Systems*, vol. 40, p. 75, mar 2016.

[28] D. A. Hammood, H. A. Rahim, R. Badlishah Ahmad, A. Alkhayyat, M. E. M. Salleh, M. Abdulmalek, M. Jusoh, and Q. H. Abbasi, "Enhancement of the Duty Cycle Cooperative Medium Access Control for Wireless Body Area Networks," *IEEE Access*, vol. 7, pp. 3348–3359, 2019.

[29] S. Henna, M. Sajeel, F. Bashir, M. Asfand-E-Yar, and M. Tauqir, "A fair contention access scheme for low-priority traffic in wireless body area networks," *Sensors (Switzerland)*, vol. 17, p. 1931, aug 2017.

[30] J. F. Herculano, W. d. P. Pereira, and A. S. de Sa, "An Adaptive TDMA Approach for Improving Reliability and Performance in WBAN under Heterogeneous Traffic and Interference," in *2022 XII Brazilian Symposium on Computing Systems Engineering (SBESC)*, pp. 1–8, IEEE, nov 2022.

[31] Y. G. Hong, H. J. Kim, H. D. Park, and D. H. Kim, "Adaptive GTS allocation scheme to support QOS and multiple devices in 802.15.4," in *International Conference on Advanced Communication Technology, ICACT*, vol. 3, pp. 1697–1702, IEEE, IEEE, 2009.

[32] M. U. Hossain, Dilruba, M. Kalyan, M. R. Rana, and M. O. Rahman, "Multi-dimensional traffic adaptive energy-efficient MAC protocol for Wireless Body Area Networks," in *2014 9th International Forum on Strategic Technology (IFOST)*, pp. 161–165, IEEE, oct 2014.

[33] W. Huang and T. Q. Quek, "Adaptive CSMA/CA MAC protocol to reduce inter-WBAN interference for wireless body area networks," in *2015 IEEE 12th International Conference on Wearable and Implantable Body Sensor Networks (BSN)*, pp. 1–6, IEEE, jun 2015.

[34] M. A. Huq, E. Dutkiewicz, Gengfa Fang, Ren Ping Liu, and R. Vesilo, "MEB MAC: Improved channel access scheme for medical emergency traffic in WBAN," in *2012 International Symposium on Communications and Information Technologies (ISCIT)*, pp. 371–376, IEEE, oct 2012.

[35] M. A. Hussain, M. N. Alam, and K. S. Kwak, "Directional MAC approach for wireless body area networks," *Sensors*, vol. 11, pp. 771–784, jan 2011.

[36] R. Jaramillo, A. Quintero, and S. Chamberland, "Energy-efficient MAC protocol for Wireless Body Area Networks," in *2015 International Conference and Workshop on Computing and Communication (IEMCON)*, vol. 12, pp. 1–5, IEEE, IEEE, oct 2015.

[37] R. Jaramillo Herrera, "Reliable, context-aware and energy-efficient architecture for wireless body area networks in sports applications," 2016.

[38] K. Das, S. Moulik, and C. Y. Chang, "Priority-based dedicated slot allocation with dynamic superframe structure in IEEE 802.15.6-based Wireless Body Area Networks," *IEEE Internet of Things Journal*, 2021.

[39] J. Kamble and A. Vidhate, "Improved MAC protocol for emergency handling in WBAN," in *2016 International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT)*, pp. 1025–1029, IEEE, sep 2016.

[40] R. Khan, M. M. Alam, and M. Guizani, "A Flexible Enhanced Throughput and Reduced Overhead (FETRO) MAC Protocol for ETSI SmartBAN," *IEEE Transactions on Mobile Computing*, vol. 21, pp. 2671–2686, aug 2022.

[41] Z. A. Khan, M. B. Rasheed, N. Javaid, and B. Robertson, "Effect of packet inter-arrival time on the energy consumption of beacon enabled MAC protocol for body area networks," *Procedia Computer Science*, vol. 32, pp. 579–586, 2014.

[42] B. Kim and J. Cho, "A novel priority-based channel access algorithm for contention-based MAC protocol in WBANs," in *Proceedings of the 6th International Conference on Ubiquitous Information Management and Communication - ICUIMC '12*, ICUIMC '12, (New York, New York, USA), p. 1, ACM Press, 2012.

[43] R. H. Kim and J. G. Kim, "Adaptive MAC Protocol for Emergency Data Transmission in Wireless Body Sensor Networks," *International Journal of Software Engineering and Its Applications*, vol. 9, pp. 205–216, sep 2015.

[44] S. Kim and B. K. Song, "A prioritized resource allocation algorithm for multiple wireless body area networks," *Wireless Networks*, vol. 23, pp. 727–735, apr 2017.

[45] I. Kirbas, A. Karahan, A. Sevin, and C. Bayilmis, "isMAC: An Adaptive and Energy-Efficient MAC Protocol Based on Multi-Channel Communication for Wireless Body Area Networks," *KSII Transactions on Internet and Information Systems*, vol. 7, pp. 1805–1824, aug 2013.

[46] K.-S. Kwak, S. Ullah, D.-H. Kwak, C.-H. Lee, and H.-S. Lee, "A Power-Efficient MAC Protocol for WBAN," *The Journal of The Korea Institute of Intelligent Transport Systems*, vol. 8, pp. 131–140, sep 2009.

[47] K. S. Kwak and S. Ullah, "A traffic-adaptive MAC protocol for WBAN," in *2010 IEEE Globecom Workshops*, pp. 1286–1289, IEEE, dec 2010.

[48] T. Le and S. Moh, "Link Scheduling Algorithm with Interference Prediction for Multiple Mobile WBANs," *Sensors*, vol. 17, p. 2231, sep 2017.

[49] T. Le and S. Moh, "Hybrid Multi-Channel MAC Protocol for WBANs with Inter-WBAN Interference Mitigation," *Sensors*, vol. 18, p. 1373, apr 2018.

[50] W. Lee, S. H. Rhee, Y. Kim, and H. Lee, "An efficient multi-channel management protocol for wireless body area networks," in *2009 International Conference on Information Networking, ICOIN 2009*, pp. 1–5, IEEE, IEEE, 2009.

[51] B. Liang, X. Liu, H. Zhou, V. C. M. Leung, A. Liu, and K. Chi, "Channel Resource Scheduling for Stringent Demand of Emergency Data Transmission in WBANs," *IEEE Transactions on Wireless Communications*, pp. 1–1, 2020.

[52] B. Liang, M. S. Obaidat, X. Liu, H. Zhou, and M. Dong, "Resource Scheduling Based on Priority Ladders for Multiple Performance Requirements in Wireless Body Area Networks," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 7, pp. 7027–7036, 2021.

[53] B. Liu, Z. Yan, and C. W. Chen, "Medium Access Control for Wireless Body Area Networks with QoS Provisioning and Energy Efficient Design," *IEEE Transactions on Mobile Computing*, vol. 16, pp. 422–434, feb 2017.

[54] J. Liu, M. Li, B. Yuan, and W. Liu, "A novel energy efficient MAC protocol for Wireless Body Area Network," *China Communications*, vol. 12, pp. 11–20, feb 2015.

[55] F. Masud, A. Abdullah, A. Altameem, G. Abdul-Salaam, and F. Muchtar, "Traffic Class Prioritization-Based Slotted-CSMA/CA for IEEE 802.15.4 MAC in Intra-WBANs," *Sensors*, vol. 19, p. 466, jan 2019.

[56] F. Masud, A. H. Abdullah, and G. Abdul-Salaam, "Emergency traffic adaptive MAC protocol for wireless body area networks based on prioritization," *PLOS ONE*, vol. 14, p. e0225518, dec 2019.

[57] K. G. Mkongwa, Q. Liu, and S. Wang, "An adaptive backoff and dynamic clear channel assessment mechanisms in IEEE 802.15.4 MAC for wireless body area networks," *Ad Hoc Networks*, vol. 120, p. 102554, sep 2021.

[58] M. Monowar, M. Hassan, F. Bajaber, M. Al-Hussein, and A. Alamri, "McMAC: Towards a MAC Protocol with Multi-Constrained QoS Provisioning for Diverse Traffic in Wireless Body Area Networks," *Sensors*, vol. 12, pp. 15599–15627, nov 2012.

[59] S. Moulik, S. Misra, and D. Das, "AT-MAC: Adaptive MAC-Frame Payload Tuning for Reliable Communication in Wireless Body Area Networks," *IEEE Transactions on Mobile Computing*, vol. 16, pp. 1516–1529, jun 2017.

[60] N. Mouzehkesh, T. Zia, S. Shafigh, and L. Zheng, "D2MAC: Dynamic delayed Medium Access Control (MAC) protocol with fuzzy technique for Wireless Body Area Networks," in *2013 IEEE International Conference on Body Sensor Networks, BSN 2013*, pp. 1–6, IEEE, may 2013.

[61] R. Negra, I. Jemili, A. Belghith, and M. Mosbah, "MTM-MAC: Medical Traffic Management MAC Protocol for Handling Healthcare Applications in WBANs," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 11803, pp. 483–497, Springer, 2019.

[62] S. Nepal, A. Pudasani, and S. Shin, "A Fast Channel Assignment Scheme for Emergency Handling in Wireless Body Area Networks," *Sensors*, vol. 17, p. 477, feb 2017.

[63] Z. Nie, Z. Li, R. Huang, Y. Liu, J. Li, and L. Wang, "A statistical frame based TDMA protocol for human body communication," *BioMedical Engineering OnLine*, vol. 14, p. 65, dec 2015.

[64] D. D. Olatinwo, A. M. Abu-Mahfouz, and G. P. Hancke, "A Hybrid Multi-Class MAC Protocol for IoT-Enabled WBAN Systems," *IEEE Sensors Journal*, vol. 21, pp. 6761–6774, mar 2021.

[65] O. Omeni, A. C. W. Wong, A. J. Burdett, and C. Toumazou, "Energy Efficient Medium Access Protocol for Wireless Medical Body Area Sensor Networks," *IEEE Transactions on Biomedical Circuits and Systems*, vol. 2, pp. 251–259, dec 2008.

[66] I. U. Onwuegbuzie, S. Abd Razak, I. Fauzi Isnin, T. S. J. Darwish, and A. Al-dhaqm, "Optimized backoff scheme for prioritized data in wireless sensor networks: A class of service approach," *PLOS ONE*, vol. 15, p. e0237154, aug 2020.

[67] Z. Qi and Y. Yi-Xin, "Study on WBAN-Based Efficient and Energy-Saving Access Mechanisms," *International Journal of Multimedia and Ubiquitous Engineering*, vol. 11, pp. 35–42, jun 2016.

[68] M. O. Rahman, C. S. Hong, S. Lee, and Y.-C. C. Bang, "ATLAS: A Traffic Load Aware Sensor MAC Design for Collaborative Body Area Sensor Networks," *Sensors*, vol. 11, pp. 11560–11580, dec 2011.

[69] S. Rezvani and S. A. Ghorashi, "Context aware and channel-based resource allocation for wireless body area networks," *IET Wireless Sensor Systems*, vol. 3, pp. 16–25, mar 2013.

[70] A. Saboor, R. Ahmad, W. Ahmed, A. K. Kiani, M. M. Alam, A. Kuusik, and Y. Le Moullec, "Dynamic Slot Allocation Using Non Overlapping Backoff Algorithm in IEEE 802.15.6 WBAN," *IEEE Sensors Journal*, vol. 20, pp. 10862–10875, sep 2020.

[71] A. Sahoo, T. Samal, and B. R. Parida, "Priority based Packet Balanced Queue MAC protocol in Wireless Body Area Network," in *2019 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT)*, pp. 1–6, IEEE, IEEE, jul 2019.

[72] M. Salayma, A. Al-Dubai, I. Romdhani, and Y. Nasser, "New dynamic, reliable and energy efficient scheduling for wireless body area networks (WBAN)," in *2017 IEEE International Conference on Communications (ICC)*, pp. 1–6, IEEE, may 2017.

[73] M. Salayma, A. Al-Dubai, I. Romdhani, and Y. Nasser, "Reliability and Energy Efficiency Enhancement for Emergency-Aware Wireless Body Area Networks (WBANs)," *IEEE Transactions on Green Communications and Networking*, vol. 2, pp. 804–816, sep 2018.

[74] T. Samal and M. R. Kabat, "Energy-Efficient Time-Sharing Multichannel MAC Protocol for Wireless Body Area Networks," *Arabian Journal for Science and Engineering*, vol. 47, pp. 1791–1804, feb 2022.

[75] S. Ullah, M. Imran, and M. Alnuem, "A hybrid and secure priority-guaranteed mac protocol for wireless body area network," *International Journal of Distributed Sensor Networks*, vol. 2014, p. 481761, feb 2014.

[76] A. Sevin, C. Bayilmis, and I. Kirbas, "Design and implementation of a new quality of service-aware cross-layer medium access protocol for wireless body area networks," *Computers and Electrical Engineering*, vol. 56, no. C, pp. 145–156, 2016.

[77] A. M. Shah, A. Abdelmaboud, K. Mahmood, M. Ul, and M. Kashif, "eHealth WBAN: Energy-Efficient and Priority-Based Enhanced IEEE802.15.6 CSMA/CA MAC Protocol," *International Journal of Advanced Computer Science and Applications*, vol. 9, no. 4, 2018.

[78] Q. Shen, *Resource Management in E-health Systems.* PhD thesis, University of Waterlooloo, aug 2015.

[79] S. 'Cheng, C. Huang, and C. C. Tu, "RACOON: A Multiuser QoS Design for Mobile Wireless Body Area Networks," *Journal of Medical Systems*, vol. 35, pp. 1277–1287, oct 2011.

[80] J. Shuai, W. Zou, and Z. Zhou, "Priority-based adaptive timeslot allocation scheme for wireless body area network," in *2013 13th International Symposium on Communications and Information Technologies (ISCIT)*, pp. 609–614, IEEE, sep 2013.

[81] G. Sun, K. Wang, H. Yu, X. Du, and M. Guizani, "Priority-Based Medium Access Control for Wireless Body Area Networks With High-Performance Design," *IEEE Internet of Things Journal*, vol. 6, pp. 5363–5375, jun 2019.

[82] N. F. Timmons and W. G. Scanlon, "An adaptive energy efficient MAC protocol for the medical body area network," in *2009 1st International Conference on Wireless Communication, Vehicular Technology, Information Theory and Aerospace & Electronic Systems Technology*, pp. 587–593, IEEE, may 2009.

[83] B. Touijer, Y. Ben Maissa, and S. Mouline, "IEEE 802.15.6 CSMA/CA access method for WBANs: Performance evaluation and new backoff counter selection procedure," *Computer Networks*, vol. 188, p. 107759, apr 2021.

[84] H.-W. Tseng, Y.-B. Wang, and Y. Yang, "An Adaptive Channel Hopping and Dynamic Superframe Selection Scheme With QoS Considerations for Emergency Traffic Transmission in IEEE 802.15.6-Based Wireless Body Area Networks," *IEEE Sensors Journal*, vol. 20, pp. 3914–3929, apr 2020.

[85] N. Ullah, P. Khan, and K. S. Kwak, "A Very Low Power MAC (VLPM) Protocol for Wireless Body Area Networks," *Sensors*, vol. 11, pp. 3717–3737, mar 2011.

[86] S. Ullah and K. S. Kwak, "An Ultra Low-power and Traffic-adaptive Medium Access Control Protocol for Wireless Body Area Network," *Journal of Medical Systems*, vol. 36, pp. 1021–1030, jun 2012.

[87] S. Ullah, "RFID-enabled MAC protocol for WBAN," in *2013 IEEE International Conference on Communications (ICC)*, vol. 16, pp. 6030–6034, IEEE, jun 2013.

[88] F. Ullah, A. H. Abdullah, G. Abdul-Salaam, M. M. Arshad, and F. Masud, "CDASA-CSMA/CA: Contention Differentiated Adaptive Slot Allocation CSMA-CA for Heterogeneous Data in Wireless Body Area Networks," *KSII Transactions on Internet and Information Systems*, vol. 11, pp. 5835–5854, dec 2017.

[89] F. Ullah, A. Abdullah, O. Kaiwartya, and M. Arshad, "Traffic Priority-Aware Adaptive Slot Allocation for Medium Access Control Protocol in Wireless Body Area Network," *Computers*, vol. 6, p. 9, feb 2017.

[90] F. Ullah, A. H. Abdullah, O. Kaiwartya, and Y. Cao, "TraPy-MAC: Traffic Priority Aware Medium Access Control Protocol for Wireless Body Area Network," *Journal of Medical Systems*, vol. 41, p. 93, jun 2017.

[91] F. Ullah, A. H. Abdullah, O. Kaiwartya, J. Lloret, and M. M. Arshad, "EETP-MAC: energy efficient traffic prioritization for medium access control in wireless body area networks," *Telecommunication Systems*, vol. 75, pp. 181–203, oct 2020.

[92] H. Wang, H.-s. Choi, N. Agoulmine, M. J. Deen, and J. W.-K. Hong, "Information-Based Energy Efficient Sensor Selection in Wireless Body Area Networks," in *2011 IEEE International Conference on Communications (ICC)*, pp. 1–6, IEEE, jun 2011.

[93] Z. Yan and B. Liu, "A context aware MAC protocol for medical Wireless Body Area Network," in *2011 7th International Wireless Communications and Mobile Computing Conference*, pp. 2133–2138, IEEE, jul 2011.

[94] Y. Yang and D. Smith, "Robust Wireless Body Area Networks Coexistence: A Game Theoretic Approach to Time-Division MAC," *arXiv*, aug 2018.

[95] J. S. Yoon, G. S. Ahn, S. S. Joo, and M. J. Lee, "PNP-MAC: Preemptive slot allocation and non-preemptive transmission for providing QoS in body area networks," *2010 7th IEEE Consumer Communications and Networking Conference, CCNC 2010*, pp. 1–5, 2010.

[96] S. M. Yoo, C. J. Chen, and P. H. Chou, "Low-complexity, high-throughput multiple-access wireless protocol for body sensor networks," in *Proceedings - 2009 6th International Workshop on Wearable and Implantable Body Sensor Networks, BSN 2009*, pp. 109–113, IEEE, IEEE, jun 2009.

[97] X. Yuan, C. Li, Y. Song, L. Yang, and S. Ullah, "On Energy-Saving in E-Healthcare: A Directional MAC Protocol for WBAN," in *2015 IEEE Globecom Workshops (GC Wkshps)*, pp. 1–6, IEEE, dec 2015.

[98] X. Yuan, C. Li, L. Yang, W. Yue, B. Zhang, and S. Ullah, "A token-based dynamic scheduled MAC protocol for health monitoring," *EURASIP Journal on Wireless Communications and Networking*, vol. 2016, p. 125, dec 2016.

[99] D. Yuan, G. Zheng, H. Ma, J. Shang, and J. Li, "An Adaptive MAC Protocol Based on IEEE802.15.6 for Wireless Body Area Networks," *Wireless Communications and Mobile Computing*, vol. 2019, pp. 1–9, feb 2019.

[100] Y. Zhang and G. Dolmans, "A New Priority-Guaranteed MAC Protocol for Emerging Body Area Networks," in *2009 Fifth International Conference on Wireless and Mobile Communications*, pp. 140–145, IEEE, 2009.

[101] Q. Zhang, M. Chaturvedi, and R. H. Jacobsen, "Performance study of the enhancement schemes for Baseline MAC of Body Area networks," in *2014 8th International Symposium on Medical Information and Communication Technology (ISMICT)*, pp. 1–5, IEEE, apr 2014.

[102] Y. Zhang and G. Dolmans, "Priority-guaranteed MAC protocol for emerging wireless body area networks," *Annales des Telecommunications/Annals of Telecommunications*, vol. 66, no. 3-4, pp. 229–241, 2011.

[103] Z. Li, M. Chen, and G. Zhang, "Variable-rate transmission method with coordinator election for wireless body area networks," *Wireless Networks*, vol. 21, pp. 2169–2180, oct 2015.

[104] J. Zhou, A. Guo, J. Xu, and S. Su, "An optimal fuzzy control medium access in wireless body area networks," *Neurocomputing*, vol. 142, pp. 107–114, 2014.

[105] D. D. Olatinwo, A. M. Abu-Mahfouz, G. P. Hancke, and H. C. Myburgh, "Energy efficient priority-based hybrid mac protocol for iot-enabled wban systems," *IEEE Sensors Journal*, vol. 23, pp. 13524–13538, 2023.

[106] F. Wang, F. Hu, L. Wang, Y. Du, X. Liu, and G. Guo, "Energy-efficient medium access approach for wireless body area network based on body posture," *China Communications*, vol. 12, pp. 122–132, dec 2015.

[107] R. Zhang, H. Moungla, J. Yu, and A. Mehaoua, "Medium Access for Concurrent Traffic in Wireless Body Area Networks: Protocol Design and Analysis," *IEEE Transactions on Vehicular Technology*, vol. 66, no. 3, pp. 2586–2599, 2017.

[108] R. Negra, I. Jemili, and A. Belghith, "Novel mac protocol for handling correlation and dynamics of medical traffic in wbans," *Ad Hoc Networks*, vol. 151, p. 103236, 2023.

[109] M. M. Alam, E. B. Hamida, O. Berder, D. Menard, and O. Sentieys, "A Heuristic Self-Adaptive Medium Access Control for Resource-Constrained WBAN Systems," *IEEE Access*, vol. 4, pp. 1287–1300, 2016.

[110] N. Alimorad, M. Maadani, and M. Mahdavi, "REO: A Reliable and Energy Efficient Optimization Algorithm for Beacon-Enabled 802.15.4-Based Wireless Body Area Networks," *IEEE Sensors Journal*, vol. 21, no. 17, pp. 19623–19630, 2021.

[111] M. A. Ameen, N. Ullah, and K. Kwak, "Design and analysis of a MAC protocol for wireless body area network using wakeup radio," in *11th International Symposium on Communications and Information Technologies, ISCIT 2011*, pp. 148–153, IEEE, 2011.

[112] O. Bouachir, A. Ben Mnaouer, and F. Touati, "PEAM: A polymorphic, energy-aware MAC protocol for WBAN," in *2016 23rd International Conference on Telecommunications (ICT)*, pp. 1–6, IEEE, IEEE, may 2016.

[113] B. Braem, B. Latre, I. Moerman, C. Blondia, P. Demeester, B. Latré, I. Moerman, C. Blondia, and P. Demeester, "The Wireless Autonomous Spanning tree Protocol for Multihop Wireless Body Area Networks," in *2006 Third Annual International Conference on Mobile and Ubiquitous Systems: Networking & Services*, pp. 1–8, IEEE, jul 2006.

[114] K. Cho, S. Jeon, J. Cho, and B. Lee, "ISRMC-MAC: Implementable Single-Radio, Multi-Channel MAC Protocol for WBANs," *KSII Transactions on Internet and Information Systems*, vol. 10, pp. 1052–1070, mar 2016.

[115] M. A. Hussain, N. Alam, S. Ullah, N. Ullah, and K. S. Kwak, "TDMA based directional MAC for WBAN," in *INC2010: 6th International Conference on Networked Computing*, pp. 1–5, IEEE, 2010.

[116] A. K. Jacob and L. Jacob, "Energy Efficient MAC for QoS Traffic in Wireless Body Area Network," *International Journal of Distributed Sensor Networks*, vol. 11, p. 404182, feb 2015.

[117] Jun Wang, Yutian Xie, and Qiong Yi, "An all dynamic MAC protocol for wireless body area network," in *11th International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2015)*, pp. 6 .–6 ., Institution of Engineering and Technology, 2015.

[118] K. A. Ali, J. H. Sarker, and H. T. Mouftah, "Urgency-Based MAC Protocol for Wireless Sensor Body Area Networks," in *2010 IEEE International Conference on Communications Workshops*, pp. 1–6, IEEE, may 2010.

[119] J. Kim, I. Song, E. Jang, and S. Choi, "A dynamic duty cycle MAC algorithm for wireless body area networks," *International Journal of Bio-Science and Bio-Technology*, vol. 4, no. 2, pp. 83–92, 2012.

[120] S. Kim, J.-H. Lee, and D.-S. Eom, "An Adaptive Beaconing MAC Protocol Providing Energy-Efficient Healthcare Service," *Wireless Personal Communications*, vol. 75, pp. 1915–1936, apr 2014.

[121] J. Lee and S. Kim, "Emergency-Prioritized Asymmetric Protocol for Improving QoS of Energy-Constraint Wearable Device in Wireless Body Area Networks," *Applied Sciences*, vol. 8, p. 92, jan 2018.

[122] D. Liu, J. Wang, C. Jiang, F. Ren, and Y. Ren, "A contention-oriented node sleeping MAC protocol for WBAN," in *2018 IEEE Wireless Communications and Networking Conference (WCNC)*, vol. 2018-April, pp. 1–6, IEEE, apr 2018.

[123] S. Misra, P. K. Bishoyi, and S. Sarkar, "i-MAC: In-Body Sensor MAC in Wireless Body Area Networks for Healthcare IoT," *IEEE Systems Journal*, vol. 15, pp. 1–8, sep 2020.

[124] M. M. Monowar and M. O. Alassafi, "On the Design of Thermal-Aware Duty-Cycle MAC Protocol for IoT Healthcare," *Sensors*, vol. 20, p. 1243, feb 2020.

[125] S. Pushpan and B. Velusamy, "Fuzzy-Based Dynamic Time Slot Allocation for Wireless Body Area Networks," *Sensors*, vol. 19, p. 2112, may 2019.

[126] S. Rezvani, "A Novel WBAN MAC protocol with Improved Energy Consumption and Data Rate," *KSII Transactions on Internet and Information Systems*, vol. 6, no. 9, 2012.

[127] F. Rismanian Yazdi, M. Hosseinzadeh, and S. Jabbehdari, "A Priority-Based MAC Protocol for Energy Consumption and Delay Guaranteed in Wireless Body Area Networks," *Wireless Personal Communications*, vol. 108, pp. 1677–1696, oct 2019.

[128] A. K. Subramanian, U. Ghosh, S. Ramaswamy, W. S. Alnumay, and P. K. Sharma, "PrEEMAC: Priority based energy efficient MAC protocol for Wireless Body Sensor Networks," *Sustainable Computing: Informatics and Systems*, vol. 30, p. 100510, 2021.

[129] A. Roshini and K. V. Kiran, "A lightweight dpt-mac protocol to increase the network lifetime in wireless body area networks," *International Journal of Modeling, Simulation, and Scientific Computing*, p. 2441011, 2023.

[130] B. Otal, L. Alonso, and C. Verikoukis, "Design and analysis of an energy-saving distributed MAC mechanism for wireless body sensor networks," *Eurasip Journal on Wireless Communications and Networking*, vol. 2010, pp. 1–13, 2010.

[131] J. F. Herculano, L. O. S. Andrade, W. de P. Pereira, and A. S. de Sá, "Theta: Protocolo tdma adaptativo para lidar com tráfego heterogêneo e dinâmico em wban," pp. 19–24, 2023.

[132] M. Ashraf, S. Hassan, S. Rubab, M. A. Khan, U. Tariq, and S. Kadry, "Energy-efficient dynamic channel allocation algorithm in wireless body area network," *Environment, Development and Sustainability*, pp. 1–17, jan 2022.

[133] X. Cai, J. Li, J. Yuan, W. Zhu, and Q. Wu, "Energy-aware adaptive topology adjustment in wireless body area networks," *Telecommunication Systems*, vol. 58, no. 2, pp. 139–152, 2014.

[134] D. R. Chen and W. M. Chiu, "Collaborative Link-Aware Protocols for Energy-Efficient and QoS Wireless Body Area Networks Using Integrated Sensors," *IEEE Internet of Things Journal*, vol. 5, no. 1, pp. 132–149, 2018.

[135] V. Esteves, A. Antonopoulos, E. Kartsakli, M. Puig-Vidal, P. Miribel-Català, and C. Verikoukis, "Cooperative energy harvesting-adaptive MAC protocol for WBANs," *Sensors (Switzerland)*, vol. 15, pp. 12635–12650, may 2015.

[136] E. Ibarra, A. Antonopoulos, E. Kartsakli, and C. Verikoukis, "HEH-BMAC: Hybrid polling MAC protocol for WBANs operated by human energy harvesting," *Telecommunication Systems*, vol. 58, pp. 111–124, feb 2014.

[137] E. Ibarra, A. Antonopoulos, E. Kartsakli, and C. Verikoukis, "Energy harvesting aware hybrid MAC protocol for WBANs," in *2013 IEEE 15th International Conference on e-Health Networking, Applications and Services, Healthcom 2013*, pp. 120–124, IEEE, oct 2013.

[138] T. N. Le, A. Pegatoquet, and M. Magno, "Asynchronous on demand MAC protocol using wake-up radio in wireless body area network," in *Proceedings - 2015 6th IEEE International Workshop on Advances in Sensors and Interfaces, IWASI 2015*, pp. 228–233, 2015.

[139] C. Li, X. Yuan, L. Yang, and Y. Song, "A Hybrid Lifetime Extended Directional Approach for WBANs," *Sensors*, vol. 15, pp. 28005–28030, nov 2015.

[140] S. J. Marinković, E. M. Popovici, C. Spagnol, S. Faul, and W. P. Marnane, "Energy-efficient low duty cycle MAC protocol fo wireless body area networks," *IEEE Transactions on Information Technology in Biomedicine*, vol. 13, no. 6, pp. 915–925, 2009.

[141] S. Marinkovic, C. Spagnol, and E. Popovici, "Energy-efficient TDMA-based MAC protocol for wireless body area networks," *Proceedings - 2009 3rd International Conference on Sensor Technologies and Applications, SENSORCOMM 2009*, pp. 604–609, 2009.

[142] S. Movassaghi, A. Majidi, A. Jamalipour, D. Smith, and M. Abolhasan, *Providing QoS in Autonomous and Neighbor-aware multi-hop Wireless Body Area Networks*. PhD Thesis, University of Cincinnati, 2015.

[143] N. Javaid, A. Ahmad, A. Rahim, Z. A. Khan, M. Ishfaq, and U. Qasim, "Adaptive Medium Access Control Protocol for Wireless Body Area Networks," *International Journal of Distributed Sensor Networks*, vol. 10, p. 254397, mar 2014.

[144] M. B. Rasheed, N. Javaid, M. Imran, Z. A. Khan, U. Qasim, and A. Vasilakos, "Delay and energy consumption analysis of priority guaranteed MAC protocol for wireless body area networks," *Wireless Networks*, vol. 23, pp. 1249–1266, may 2017.

[145] S. Sadra and M. Abolhasan, "On improving the saturation performance of IEEE802.15.6-based MAC protocols in Wireless Body Area Networks," in *2017 13th International Wireless Communications and Mobile Computing Conference (IWCMC)*, pp. 1233–1238, IEEE, jun 2017.

[146] H. Zhang, F. Safaei, and L. C. Tran, "A Novel Cooperation-Based Network Coding Scheme for Walking Scenarios in WBANs," *Wireless Communications and Mobile Computing*, vol. 2017, pp. 1–20, 2017.

[147] G. Zhou, Q. Li, J. Li, Y. Wu, S. Lin, J. Lu, C.-Y. Wan, M. D. Yarvis, and J. A. Stankovic, "Adaptive and Radio-Agnostic QoS for Body Sensor Networks," *ACM Transactions on Embedded Computing Systems*, vol. 10, pp. 1–34, nov 2011.

[148] L. Zheng, J. Hu, and Y. Jiao, "A cross-layer media access control protocol for wbans," *Sustainability (Switzerland)*, vol. 15, p. 11381, 2023.

[149] P. Khan, N. Ullah, S. Ullah, and K. S. Kwak, "Analytical modeling of IEEE 802.15.6 CSMA/CA protocol under different access periods," in *14th International Symposium on Communications and Information Technologies, ISCIT 2014*, pp. 151–155, IEEE, 2015.

[150] M. Abdel-Hafez, F. Sallabi, M. Adnan, and K. Shuaib, "Performance Improvement of IEEE 802.15.6 MAC for eHealth Applications Using User Priority Switching," in *IEEE International Conference on Communications*, pp. 1–6, 2021.

[151] A. I. Abdu, O. Bayat, and O. N. Ucan, "Designing insistence-aware medium access control protocol and energy conscious routing in quality-of-service-guaranteed wireless body area network," *International Journal of Distributed Sensor Networks*, vol. 15, p. 155014771881584, jan 2019.

[152] W. A. Nadia Wan Abdullah, N. Yaakob, R. Badlishah, M. Elshaikh Elobaid, S. Asilah Yah, and I. Zunaidi, "Fragmentation in MAC IEEE 802.15.4 to Improve Delay Performance in Wireless Body Area Network (WBAN)," *IOP Conference Series: Materials Science and Engineering*, vol. 557, p. 012020, jun 2019.

[153] D. Abdumohsin Hammood, H. A. Rahim, A. Alkhayyat, and R. Badlishah Ahmad, "Enhancement of the Performance ff Wireless Body Area Networks through Cooperative Medium Access Control," in *IOP Conference Series: Materials Science and Engineering*, vol. 864, p. 12106, IOP Publishing, 2020.

[154] A. Adarsh, A. Tiwari, and B. Kumar, "Performance Analysis of Data Sensitive Adaptive MAC Protocol for Intra-Hospital Scenario," in *2019 10th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2019*, pp. 1–6, IEEE, IEEE, jul 2019.

[155] I. Ahmad, S. Ali, F. Ali, H. Junaid, and F. Zaid, "Reinforcement Learning-Based Coexistence Interference Management in Wireless Body Area Networks," *International Journal of Computer and Systems Engineering*, vol. 14, no. 11, pp. 446–453, 2020.

[156] S. M. R. Al Masud, A. Abu Bakar, S. Yussof, A. A. Bakar, and S. Yussof, "A modified WBANs MAC superframe using priority-criticality index table for managing pilgrims' emergency traffic in Hajj," *Indonesian Journal of Electrical Engineering and Computer Science*, vol. 14, p. 1499, jun 2019.

[157] B. Al-Ghamdi, M. Ayaida, H. Fouchal, and H. Baala, "A slot assignment for Wireless Body Area Networks," in *2014 IEEE Symposium on Computers and Communications (ISCC)*, vol. Workshops, pp. 1–8, IEEE, jun 2014.

[158] K. A. Ali, J. H. Sarker, and H. T. Mouftah, "A MAC protocol for cognitive wireless body area sensor networking," in *Proceedings of the 6th International Wireless Communications and Mobile Computing Conference on ZZZ - IWCMC '10*, IWCMC '10, (New York, New York, USA), p. 168, ACM Press, 2010.

[159] M. Ambigavathi and D. Sridharan, "An Effective Dynamic Slot Allocation Scheme for Wireless Body Area Network," in *Lecture Notes in Electrical Engineering*, vol. 493, pp. 123–130, Springer, 2019.

[160] M. N. Andressa Vergutz, Rafael da Silva, Alex B. Vieira, "Um Sistema de Identificacao Antecipada e Transmissão Prioritária de Alertas Médicos sobre WBAN e WLAN," in *SBRC Para*, vol. 29, p. 2006, SBC, 2017.

[161] K. Ashrafuzzaman and K.-S. Kwak, "On the QoS Support in Medium Access Control for Medical Sensor Networks," *The Journal of The Korea Institute of Intelligent Transport Systems*, vol. 9, no. 6, pp. 151–158, 2010.

[162] K. Ashrafuzzaman and K. S. Kwak, "Towards a schedule based MAC protocol with QoS provisioning for sensor networks," in *ICUFN 2010 - 2nd International Conference on Ubiquitous and Future Networks*, pp. 205–209, IEEE, jun 2010.

[163] B. B. Azzouz, B. Mohamed, B. Abdesselam, C. Goursaud, and F. Hutu, "Enhancement optimized MAC protocol for medical applications," in *NTIC 2015 - 2015 1st International Conference on New Technologies of Information and Communication, Proceeding*, pp. 1–6, IEEE, nov 2015.

[164] W. Badreddine and M. Potop-Butucaru, "Peak transmission rate resilient crosslayer broadcast for body area networks," *arXiv*, 2017.

[165] B. Bala, M. Pandey, and D. Prasad, "An Adaptive Timeslot Allocation Scheme for Wireless Body Area Networks," *International Journal of Computer Applications*, vol. 133, pp. 31–35, jan 2016.

[166] S. S. Banu and K. Baskaran, "Time stationed traffic prioritization protocol for wireless body area network (WBAN)–modeling and energy consumption analysis," *Advances in Natural and Applied Sciences*, vol. 11, no. 9, pp. 10–17, 2017.

[167] A. S. C. Bayilmis, "A QoS-Based Medium Access Control Protocol for WBANs and Its Performance Evaluation," 2011.

[168] B.-S. Kim, K.-I. Kim, B. Shah, S. Ullah, and K. Kim, "An extended IEEE 802.15. 6 for thermal-aware resource management," *Ad Hoc Networks*, p. 102856, 2022.

[169] S. Berrahal and N. Boudriga, "A smart QoS- based traffic management for WBANs," in *2014 14th International Symposium on Communications and Information Technologies (ISCIT)*, pp. 161–165, IEEE, sep 2014.

[170] A. Bhatia and R. K. Patro, "PMAC: A poll-based MAC protocol for wireless body area networks (WBANs)," in *2016 IEEE International Conference on Advanced Networks and Telecommunications Systems, ANTS 2016*, pp. 1–6, IEEE, nov 2017.

[171] A. Bhatia and S. Singh, "Bandwidth efficient clock skew compensation in TDMA-based star topology wireless networks," in *Proceedings - International Conference on Advanced Information Networking and Applications, AINA*, pp. 522–529, IEEE, mar 2017.

[172] A. Bhatia and R. K. Patro, "A Delay and Energy Efficient Poll-Based MAC Protocol for Wireless Body Area Networks," *Wireless Personal Communications*, vol. 99, no. 2, pp. 915–939, 2018.

[173] S. Bhoir and A. Vidhate, "An improved WBAN MAC protocol," in *2014 International Conference on Computer Communication and Informatics*, pp. 1–6, IEEE, jan 2014.

[174] N. Bilandi, H. K. Verma, and R. Dhir, "An Energy Efficient TDMA based MAC Protocol for Wireless Body Area Networks," in *2018 First International Conference on Secure Cyber Computing and Communication (ICSCCC)*, pp. 545–549, IEEE, dec 2018.

[175] A. A. S. Y. Bin-Habtoor, R. R. Irshad, and I. M. G. Alwayle, "A Multi-beam Directional MAC Approach for Wireless Body Area Networks," *International Journal of Innovations in Engineering and Technology (IJIET)*, vol. 12, no. 3, pp. 68–82, 2019.

[176] N. Bradai, L. C. Fourati, S. Boudjit, and L. Kamoun, "New priority MAC protocol for wireless body area networks," in *Proceedings of the 3rd ACM MobiHoc workshop on Pervasive wireless healthcare - MobileHealth '13*, MobileHealth '13, (New York, New York, USA), p. 1, ACM Press, 2013.

[177] N. N. N. Bradai, H. Ben Elhadj, S. Boudjit, L. Chaari, and L. Kamoun, "QoS architecture over WBANs for remote vital signs monitoring applications," in *2015 12th Annual IEEE Consumer Communications and Networking Conference (CCNC)*, pp. 1–6, IEEE, jan 2015.

[178] N. Bradai, L. C. Fourati, and L. Kamoun, "Performance Analysis of Medium Access Control Protocol for Wireless Body Area Networks," in *2013 27th International Conference on Advanced Information Networking and Applications Workshops*, pp. 916–921, IEEE, mar 2013.

[179] M. Bukvic and J. Misic, "Traffic prioritisation in 802.15.6 MAC: Analysis of its CSMA/CA algorithm and proposals for improvement," *Telfor Journal*, vol. 7, no. 1, pp. 8–13, 2015.

[180] C. Buratti, R. D'Errico, M. Maman, F. Martelli, R. Rosini, and R. Verdone, "Design of a body area network for medical applications," in *Proceedings of the 4th International Symposium on Applied Sciences in Biomedical and Communication Technologies - ISABEL '11*, ISABEL '11, (New York, New York, USA), pp. 1–5, ACM Press, 2011.

[181] H. Bushra, *A Hybrid Mac Layer Protocol for Heterogeneous Wireless Body Area Networks*. PhD Thesis, Department of Physics, COMSATS University Islamabad, Lahore campus, 2019.

[182] X. Cai, J. Yuan, X. Yuan, W. Zhu, J. Li, C. Li, and S. Ullah, "Energy-efficient relay MAC with dynamic power control in wireless body area networks," *KSII Transactions on Internet and Information Systems*, vol. 7, pp. 1547–1568, jul 2013.

[183] A. Çalhan, "A non-preemptive priority scheduling algorithm for improving priority data transmission delay in wireless body area networks," *Ad-Hoc and Sensor Wireless Networks*, vol. 34, no. 1-4, pp. 59–75, 2016.

[184] Deepshikha and S. Chauhan, "Load adaptive and priority based MAC protocol for body sensors and consumer electronic (CE) devices," in *Communications in Computer and Information Science*, vol. 906, pp. 88–97, Springer, 2018.

[185] D. R. Chen, P. F. Wang, and W. M. Chiu, "On the study of interference mitigation and QoS protocol for wireless body area networks using real-time scheduling," *2017 27th International Telecommunication Networks and Applications Conference, ITNAC 2017*, vol. 2017-Janua, pp. 1–6, nov 2017.

[186] D. R. Chen, "A real-time streaming control for quality-of-service coexisting wireless body area networks," *Applied Soft Computing Journal*, vol. 68, pp. 719–732, 2018.

[187] K. Cho, Z. Jin, and J. Cho, "Design and implementation of a single radio multi-channel MAC protocol on IEEE 802.15.4 for WBAN," in *Proceedings of the 8th International Conference on Ubiquitous Information Management and Communication, ICUIMC 2014*, ICUIMC '14, (New York, NY, USA), Association for Computing Machinery, 2014.

[188] J. S. Choi and J. G. Kim, "An Energy Efficient MAC Protocol for WBAN through Flexible Frame Structure," in *Advanced Science and Technology Letters*, vol. 17, pp. 5–8, Science & Engineering Research Support soCiety, dec 2013.

[189] A. Choudhary, M. Nizamuddin, M. Zadoo, and V. K. Sachan, "Multi-objective optimization framework complying IEEE 802.15.6 communication standards for wireless body area networks," *Wireless Networks*, vol. 26, no. 6, pp. 4339–4362, 2020.

[190] K. K. Coelho, A. D. Souza, and J. A. M. Nacif, "Avaliação de um Protocolo de Acesso ao Meio para Redes Corporais WBAN na Plataforma GNURadio,"

[191] B. M. Cremonezi, A. B. Vieira, M. Nogueira, and J. A. M. Nacif, "Um protocolo de alocacao dinamica de canais para ambientes medicos sob multiplas estacoes base," in *Anais do XXXV Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos*, SBC, 2017.

[192] M. M. Dhanvijay and S. C. Patil, "Energy aware MAC protocol with mobility management in wireless body area network," *Peer-to-Peer Networking and Applications*, vol. 15, pp. 426–443, jan 2022.

[193] M. ElAzhari, A. Toumanari, and R. Latif, "Enhanced CSMA/CA Contention Window for Efficient Random Access in IEEE 802. 15. 6," *International Journal of Computer Applications*, vol. 102, no. 8, pp. 20–25, 2014.

[194] Q. O. S. Em and R. Convergentes, "Escalonadores De Tráfego Para Garantir Qos Em Redes Convergentes E Corporais," 2012.

[195] A. Enkoji, M. Li, J. D. Brisky, and R. Melvin, "Dynamic EAP Based MAC Protocol for Wireless Body Area Networks," in *2019 International Conference on Computing, Networking and Communications, ICNC 2019*, pp. 531–536, IEEE, feb 2019.

[196] A. Enkoji, *Dynamic Eap Based Medium Access Control Protocol for Ieee 802.15.6 Wireless Body Area Networks.* PhD Thesis, 2019.

[197] S. Essafi and T. Ezzedine, "Adaptive Parameters Adjustment in WBAN based IEEE 802.15.4 Protocol to Mitigate Wi-Fi Interferences," *Journal of Computing and Information Technology*, vol. 26, pp. 69–83, jun 2018.

[198] S. Ezhil Pradha and S. Ka, "Performance evaluation of energy efficient MAC protocol for wireless body area network," in *2019 IEEE International Conference on System, Computation, Automation and Networking, ICSCAN 2019*, pp. 1–7, IEEE, IEEE, mar 2019.

[199] A. Farhad, Y. Zia, S. Farid, and F. B. Hussain, "D-MAC : A Dynamic MAC Algorithm for the Body Area Sensor Networks Based on IEEE 802.15.4," *Wireless Personal Communications*, vol. 16, no. 5, pp. 29–36, 2016.

[200] X. Feng, "The study of MAC protocol fairness for WBANs," *Proceedings of 2011 International Conference on Computer Science and Network Technology, ICCSNT 2011*, vol. 2, pp. 795–799, dec 2011.

[201] L. Aissaoui Ferhi, K. Sethom, and F. Choubani, "Energy Efficiency Optimization for Wireless Body Area Networks Under 802.15.6 Standard," *Wireless Personal Communications*, vol. 109, pp. 1769–1779, dec 2019.

[202] P. H. Ghare, A. G. Kothari, and A. G. Keskar, "Modification of superframe structure of 802.15.4 MAC for body area networks," in *2011 Third International Conference on Communication Systems and Networks (COMSNETS 2011)*, vol. 2186, pp. 1–4, IEEE, jan 2011.

[203] M. P. Gomes, "Controle de Acesso ao Meio (MAC) Baseado em Polling Flexível e Ponderado para Rede Corporal de Sensores Sem Fio," *Faculdade Campo Limpo Paulista, Campo Limpo Paulista-SP*, 2015.

[204] L. Goratti, U. Celentano, and J. Salokannel, "Energy Consumption of Beacon Period Extension and Contraction in Distributed Medium Access Control," in *2006 IEEE 17th International Symposium on Personal, Indoor and Mobile Radio Communications*, pp. 1–5, IEEE, sep 2006.

[205] K. C. Gouda and M. R. Kabat, "Traffic Aware Dynamic MAC Protocol Using Fuzzy Logic Controller for Wireless Body Area Networks," in *2018 Second International Conference on Intelligent Computing and Control Systems (ICICCS)*, pp. 204–209, IEEE, jun 2018.

[206] K. C. Gouda, S. P. Biswal, S. Debnath, and S. K. Sahu, "Implementation of Traffic Priority Aware Medium Access Control Protocol for Wireless Body Area Networks," in *Lecture Notes in Networks and Systems*, vol. 82, pp. 379–397, Springer, 2020.

[207] R. Goyal, H. S. Bhadauria, R. B. Patel, and D. Prasad, "TDMA based delay sensitive and energy efficient protocol for wban," *Journal of Engineering Science and Technology*, vol. 12, no. 4, pp. 1067–1080, 2017.

[208] A. Guizar, A. Ouni, C. Goursaud, C. Chaudet, and J. M. Gorce, "Quantifying the impact of scheduling and mobility on IR-UWB localization in body area networks," in *2015 IEEE 12th International Conference on Wearable and Implantable Body Sensor Networks, BSN 2015*, pp. 1–6, IEEE, jun 2015.

[209] W. Guo, X. Li, Y. Gan, and T. Lu, "A mac protocol based on coefficient of variation method in energy harvesting wireless body area network," pp. 172–180, 2023.

[210] J. Han, J. Liu, H. Yu, C. Chen, and Z. Shen, "HCVP: A hybrid cognitive validation platform for WBAN," in *2012 International Conference on Wireless Communications and Signal Processing, WCSP 2012*, pp. 1–6, IEEE, oct 2012.

[211] S. Hassan and M. Mateen Yaqoob, "Examination of Energy Efficiency for MAC Protocol in Wireless Body Area Networks," *International Journal of Computer Applications*, vol. 108, pp. 9–13, dec 2014.

[212] S. P. Hemnani, R. M. Syed, S. Saleem, M. Mustaqim, and N. Kamlesh, "EBM: a cross-layer approach for wireless body area networks," *J. Emerg. Trends Comput. Inf. Sci*, vol. 7, no. 2, pp. 69–76, 2016.

[213] S. Henna and M. A. Sarwar, "An Adaptive Backoff Mechanism for IEEE 802.15.4 Beacon-Enabled Wireless Body Area Networks," *Wireless Communications and Mobile Computing*, vol. 2018, 2018.

[214] M. M. Hossain, M. M. Islam, and M. O. Rahman, *A Cognitive Approach for Load Adaptive MAC Protocol in Wireless Body Area Networks*, pp. 223–235. Chapman and Hall/CRC, 2023.

[215] L. Hu, Y. Zhang, D. Feng, M. M. Hassan, A. Alelaiwi, and A. Alamri, "Design of QoS-Aware Multi-Level MAC-Layer for Wireless Body Area Network," *Journal of Medical Systems*, vol. 39, no. 12, 2015.

[216] K. Hur, W. S. Sohn, J. K. Kim, and Y. Lee, "Novel MAC protocol and middleware designs for wearable sensor-based systems for health monitoring," *International Journal of Distributed Sensor Networks*, vol. 2013, no. 4, p. 404168, 2013.

[217] Z. Hussain, H. Karvonen, and J. Iinatti, "Energy efficiency evaluation of wake-up radio based MAC protocol for wireless body area networks," in *2017 IEEE 17th International Conference on Ubiquitous Wireless Broadband, ICUWB 2017 - Proceedings*, vol. 2018-Janua, pp. 1–5, 2018.

[218] J. Hwang, J. Kim, and K. Kim, "Beta-Decrement of Contention Probability to Enhance Both Fairness and Throughput in IEEE 802.15.6 Slotted Aloha Algorithm," *Wireless Personal Communications*, vol. 97, pp. 2053–2067, nov 2017.

[219] M. A. Iqbal, "RLEACH (Rectangular Low Energy Adaptive Clustering Hierarcy) based routing protocol for Wireless Sensor Networks," 2012.

[220] M. N. Islam, J. Khan, and M. R. Yuce, "A MAC protocol for implanted devices communication in the MICS band," in *2013 IEEE International Conference on Body Sensor Networks*, pp. 1–6, IEEE, may 2013.

[221] L. Issaoui, A. Horrich, and K. Sethom, "Improved MAC access under IEEE 802.15.6 WBAN standard," in *2017 Ninth International Conference on Ubiquitous and Future Networks (ICUFN)*, pp. 416–420, IEEE, jul 2017.

[222] A. K. Jacob and L. Jacob, "An investigation into the effectiveness of IEEE 802.15.6 MAC access methods," in *2015 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES)*, pp. 1–5, IEEE, feb 2015.

[223] A. K. Jacob and L. Jacob, "A Green Media Access Method for IEEE 802.15.6 Wireless Body Area Network," *Journal of Medical Systems*, vol. 41, p. 179, nov 2017.

[224] A. K. Jacob and L. Jacob, "Enhancing reliability of emergency traffic in IEEE 802.15.6 wireless body area networks," in *TENSYMP 2017 - IEEE International Symposium on Technologies for Smart Cities*, IEEE Region 10 Symposium, IEEE Reg 10; IEEE, 2017.

[225] A. Jamthe, *Mitigating interference in Wireless Body Area Networks and harnessing big data for healthcare*. PhD Thesis, University of Cincinnati, 2015.

[226] A. Javadpour, G. Wang, and K.-C. Li, "A High Throughput MAC Protocol for Wireless Body Area Networks in Intensive Care," in *Communications in Computer and Information Science*, vol. 1122 CCIS, pp. 23–34, Springer, 2019.

[227] Y. Jin and S. Wang, "M-MAC: Motion sensor assisted MAC protocol for body area network with periodical movement," in *2016 IEEE Global Communications Conference, GLOBECOM 2016 - Proceedings*, pp. 1–6, IEEE, 2016.

[228] A. Jose and T. P. S. VA, "Node prioritization and dynamic slot allocation for emergency event communication in wbans," 2023.

[229] B. Kang, C. Chung, and J. Kim, "Energy-efficient beacon listening scheme for periodic vital signal monitoring," *Electronics Letters*, vol. 52, no. 18, pp. 1516–1518, 2016.

[230] R. Khan, "System Level Optimizations in Wearable Wireless Networks,"

[231] A. Khan, S. Ali, D. Shah, and A. Farhad, "A Self-Adaptive Superframe Structure for Emergency Traffic Based IEEE 802.15.6," in *2018 15th International Conference on Smart Cities: Improving Quality of Life Using ICT & IoT (HONET-ICT)*, pp. 122–126, IEEE, oct 2018.

[232] F. N. Khan, R. Ahmad, W. Ahmed, M. M. Alam, and M. Drieberg, "Interference and Priority Aware Coexistence (IPC) Algorithm for Link Scheduling in IEEE 802.15.6 Based WBANs," *IEEE Access*, vol. 7, pp. 168736–168751, 2019.

[233] S. Khssibi, A. Van Den Bossche, H. Idoudi, L. Azouz Saidane, and T. Val, "Enhancement of the Traffic Differentiation Architecture for WBAN Based on IEEE 802.15.4," *Wireless Personal Communications*, vol. 101, pp. 1519–1537, aug 2018.

[234] J. H. Kim, C. K. Hong, and S. B. Choi, "Optimal allocation of random access period for wireless body area network," *Journal of Central South University*, vol. 20, pp. 2195–2201, aug 2013.

[235] J. G. Kim and R. H. Kim, "MAC protocol with priority to urgent data in wireless healthcare monitoring sensor networks," in *Lecture Notes in Electrical Engineering*, vol. 393, pp. 311–317, Springer, 2016.

[236] B. Kim, B. Lee, and J. Cho, "ASRQ: Automatic Segment Repeat Request for IEEE 802.15.4-Based WBAN," *IEEE Sensors Journal*, vol. 17, pp. 2925–2935, may 2017.

[237] S. Kim and J. Ko, "IB-MAC: Transmission Latency-Aware MAC for Electro-Magnetic Intra-Body Communications," *Sensors*, vol. 19, p. 341, jan 2019.

[238] R. Kong, C. Chen, W. Yu, B. Yang, and X. Guan, "Data priority based slot allocation for wireless body area networks," in *2013 International Conference on Wireless Communications and Signal Processing, WCSP 2013*, pp. 1–6, IEEE, 2013.

[239] J. L. A. Kumar, M. Sarkar, S. Mohanty, and S. H. Ahmed, "A comparative study of MAC protocols in brain-computer interface (BCI) applications," in *2017 13th International Wireless Communications and Mobile Computing Conference (IWCMC)*, pp. 1522–1527, IEEE, jun 2017.

[240] S. Kumar and P. K. Verma, "A multi-phase smo-based mac protocol for iot-enabled wban systems," *IETE Journal of Research*, pp. 1–14, 2023.

[241] L. Lahlou, A. Meharouech, J. Elias, and A. Mehaoua, "MAC-network cross-layer energy optimization model for Wireless Body Area Networks," in *2015 International Conference on Protocol Engineering (ICPE) and International Conference on New Technologies of Distributed Systems (NTDS)*, pp. 1–5, IEEE, jul 2015.

[242] T. T. Le and S. Moh, "An interference-aware traffic-priority-based link scheduling algorithm for interference mitigation in multiplewireless body area networks," *Sensors (Switzerland)*, vol. 16, p. 2190, dec 2016.

[243] B. Lee, J. Yun, and K. Han, "Dynamic channel adjustable asynchronous cognitive radio MAC protocol for wireless medical body area sensor networks," in *Communications in Computer and Information Science* (T.-h. Kim, H. Adeli, W.-c. Fang, T. Vasilakos, A. Stoica, C. Z. Patrikakis, G. Zhao, J. G. Villalba, and Y. Xiao, eds.), vol. 266 CCIS, pp. 338–345, Berlin, Heidelberg: Springer Berlin Heidelberg, 2011.

[244] N. Li, C. Li, B. Zhang, and Y. Zhang, "An interference mitigation MAC protocol for wireless body area network," in *2017 IEEE/CIC International Conference on Communications in China (ICCC)*, vol. 2018-Janua, pp. 1–6, IEEE, oct 2017.

[245] N. Li, X. Cai, X. Yuan, Y. Zhang, B. Zhang, and C. Li, "EIMAC: A multi-channel MAC protocol towards energy efficiency and low interference for WBANs," *IET Communications*, vol. 12, no. 16, pp. 1954–1962, 2018.

[246] L. Lin, C. Yang, K. J. Wong, H. Yan, J. Shen, and S. J. Phee, "An energy efficient MAC protocol for multi-hop swallowable body sensor networks," *Sensors (Switzerland)*, vol. 14, no. 10, pp. 19457–19476, 2014.

[247] Y. Liu, K. Davaslioglu, and R. D. Gitlin, "Energy efficiency and resource allocation of IEEE 802.15.6 IR-UWB WBANs: Current state-of-the-art and future directions," in *2017 Information Theory and Applications Workshop (ITA)*, pp. 1–10, IEEE, feb 2017.

[248] B. Malik and V. R. Singh, "Mutual Information Based Dynamic Model in Wireless Body Area Network," *Wireless Personal Communications*, vol. 84, no. 2, pp. 985–997, 2015.

[249] A. Manirabona and L. C. Fourati, "A 4-tiers architecture for mobile WBAN based health remote monitoring system," *Wireless Networks*, vol. 24, pp. 2179–2190, aug 2018.

[250] S. M. R. A. Masud and A. K. Saha, "A Delay-tolerant MAC Protocol for Emergency Care in WBAN Considering Preemptive and Non-preemptive Methods," *International Journal of Advanced Computer Science and Applications*, vol. 12, no. 11, pp. 463–473, 2021.

[251] R. Matsuo, T. Nabetani, H. Tanakay, W. H. Chin, and S. Subramani, "Performance of simple and Smart PHY/MAC mechanisms for Body Area Networks," in *2015 IEEE International Conference on Communications (ICC)*, vol. 2015-Septe, pp. 501–506, IEEE, jun 2015.

[252] H. Moungla, A. Jarray, A. Karmouch, and A. Mehaoua, "Cost-effective reliability-and energy-based intra-WBAN interference mitigation," in *2014 IEEE Global Communications Conference, GLOBECOM 2014*, pp. 2399–2404, IEEE, dec 2014.

[253] N. Mouzehkesh, T. Zia, and S. Shafigh, "Traffic aware fuzzy-tuned delay range for wireless body area networks medium access control protocol (MAC)," in *2013 IEEE Eighth International Conference on Intelligent Sensors, Sensor Networks and Information Processing*, vol. 1, pp. 60–65, IEEE, apr 2013.

[254] N. Mouzehkesh, T. Zia, S. Shafigh, and L. Zheng, "Dynamic backoff scheduling of low data rate applications in wireless body area networks," *Wireless Networks*, vol. 21, no. 8, pp. 2571–2592, 2015.

[255] H. Murtaza, M. A. Iqbal, M. A. Islam, and M. Aleem, "Content-aware reliable and energy-efficient MAC (CARE-MAC) protocol for wireless body area networks," *Ad-Hoc and Sensor Wireless Networks*, vol. 41, no. 3-4, pp. 267–294, 2018.

[256] M. M. Mustafa and V. Parthasarathy, "A design and implementation of polling TDMA with a comparative analysis with time division multiple access for sporting application," *Wireless Networks*, vol. 26, pp. 1897–1904, apr 2020.

[257] A. Muthulakshmi and K. Shyamala, "Efficient Patient Care Through Wireless Body Area Networks—Enhanced Technique for Handling Emergency Situations with Better Quality of Service," *Wireless Personal Communications*, vol. 95, pp. 3755–3769, aug 2017.

[258] M. A. Nasreen and S. Ravindran, "Energy efficient two-stage capacity allocation scheme for wban healthcare applications," *Ad Hoc Networks*, vol. 140, p. 103065, 2023.

[259] S. M. Nekooei, G. Chen, and R. K. Rayudu, "Evolutionary design of fuzzy logic controllers for medium access control in WBAN," in *2016 IEEE Congress on Evolutionary Computation, CEC 2016*, pp. 2821–2828, IEEE, 2016.

[260] S. M. Nekooei, *Cross-Layer Media Access Control in Wireless Body Area Networks Using Fuzzy Logic and Evolutionary Computation.* PhD thesis, Victoria University of Wellington, 2017.

[261] S. M. Nekooei, G. Chen, and R. Rayudu, "Cooperative design of two level fuzzy logic controllers for medium access control in wireless body area networks," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 10593 LNCS, pp. 870–882, 2017.

[262] S. M. Nekooei and G. Chen, "Cooperative Coevolution Design of Multilevel Fuzzy Logic Controllers for Media Access Control in Wireless Body Area Networks," *IEEE Transactions on Emerging Topics in Computational Intelligence*, vol. 4, no. 3, pp. 336–350, 2020.

[263] M. Nekoui, R. Huang, and L. Chu, "Allocation slot arrangement for flexible polling-based TDMA in wireless body area networks," in *BODYNETS 2013 - 8th International Conference on Body Area Networks*, BodyNets '13, (Brussels, BEL), pp. 62–68, ICST (Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering), 2013.

[264] S. D. Nesheli, A. Majidnia, M. Golesorkhtabaramiri, and M. Farokhzad, "A Novel MAC Protocol for Energy Conservation in Wireless Body Area Networks," 2021.

[265] S. Ogawa, T. Goto, T. Kobayashi, C. Sugimoto, and R. Kohno, "MAC Protocol with Interference Mitigation Using Negotiation Among Coordinators in Multiple Wireless Body Area Networks," in *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, LNICST*, vol. 297 LNICST, pp. 384–393, Springer Nature, 2019.

[266] D. D. Olatinwo, A. M. Abu-Mahfouz, and G. P. Hancke, "Energy-Aware Hybrid MAC Protocol for IoT Enabled WBAN Systems," *IEEE Sensors Journal*, vol. 22, pp. 2685–2699, feb 2021.

[267] D. D. Olatinwo, A. M. Abu-Mahfouz, G. P. Hancke, and H. C. Myburgh, "Energy-efficient multichannel hybrid mac protocol for iot-enabled wban systems," *IEEE Sensors Journal*, vol. 23, pp. 27967–27983, 2023.

[268] S. R. d. J. Oliveira, "Método De Acesso Ao Meio Baseado Em Prioridades Para Melhoria Das Taxas De Transferência Em Wbans," p. 153, 2017.

[269] B. Otal, L. Alonso, and C. Verikoukis, "Towards energy saving wireless body sensor networks in health care systems," in *2010 IEEE International Conference on Communications Workshops*, pp. 1–5, 2010.

[270] U. S. Pandey, G. Soni, and S. K. Chandra, "The impact of alteration of superframe duration on the consumption of energy in the ieee 802.15.4 mac," pp. 254–260, 2023.

[271] B. Pandya, F. K. Chuang, C. H. Tseng, and T. D. Chiueh, "An energy-efficient communication system using joint beamforming in multi-hop health monitoring sensor networks," *Eurasip Journal on Wireless Communications and Networking*, vol. 2017, p. 172, dec 2017.

[272] T. Paso, J. P. Makela, and J. Iinatti, "Enhancing the IEEE 802.15.4 MAC with dynamic GTS allocation for medical applications," in *2011 the 14th International Symposium on Wireless Personal Multimedia Communications: Communications, Networking and Applications for the Internet of Things, WPMC'11*, pp. 1–5, IEEE, 2011.

[273] T. Paso, V. Niemelä, J. Haapola, and J. Iinatti, "Novel modulation adaptation techniques for IEEE 802.15.4a UWB system," in *2012 6th International Symposium on Medical Information and Communication Technology, ISMICT 2012*, pp. 1–4, IEEE, 2012.

[274] R. S. Pozza, "Uma Abordagem Cross-Layer para Redes Corporais Sem Fio Considerando Dispositivos com Taxas de Dados Variáveis," *IEEE Latin America Transactions*, vol. 17, no. 9, pp. 1537–1545, 2019.

[275] K. S. Prabh, F. Royo, S. Tennina, and T. Olivares, "A MAC protocol for reliable communication in low power body area networks," *Journal of Systems Architecture*, vol. 66-67, pp. 1–13, 2016.

[276] S. E. Pradha, A. Moshika, B. Natarajan, K. Andal, G. Sambasivam, and M. Shanmugam, "Scheduled Access Strategy for Improving Sensor Node Battery Life Time and Delay Analysis of Wireless Body Area Network," *IEEE Access*, vol. 10, pp. 3459–3468, 2022.

[277] X. Qi, K. Wang, D. Yue, L. Shu, Y. Liu, and H. Zhao, "Adaptive TDMA-based MAC protocol in energy harvesting wireless body area network for mobile health," in *IECON 2015 - 41st Annual Conference of the IEEE Industrial Electronics Society*, pp. 004175–004180, IEEE, nov 2015.

[278] K. Ramgoolam and V. Bassoo, "Power Saving MAC Protocols for Wireless Body Area Networks (WBANs)," *Wireless Personal Communications*, pp. 1–23, 2021.

[279] J. Ramis-Bibiloni and L. Carrasco-Martorell, "Lengthening battery life expectancy of sensors in wbans: A multifactorial approach," *Internet of Things*, vol. 25, p. 101071, 4 2024.

[280] P. Rani, A. Dumka, R. Yadav, and V. Yadav, "Enhanced Combined Multiplexing Algorithm (ECMA) for Wireless Body Area Network (WBAN)," in *Proceedings of Second Doctoral Symposium on Computational Intelligence*, pp. 93–101, Springer, 2022.

[281] J. S. Ranjit and S. Shin, "A Modified IEEE 802.15.4 Superframe Structure for Guaranteed Emergency Handling in Wireless Body Area Network," *Network Protocols and Algorithms*, vol. 5, p. 1, jun 2013.

[282] S. M. Rasool and S. A. A. A. Gafoor, "ENERGY EFFICIENCY AND QOS CONCESSION TECHNIQUE UTILIZING OMAC PROTOCOL FOR WBAN," *Psychology and Education Journal*, vol. 58, no. 4, pp. 1420–1441, 2021.

[283] S. M. Rasool and S. A. A. A. Gafoor, "OMAC: Optimal Medium Access Control Based Energy and QoS Compromise Techniques for Wireless Body Area Networks," *Wireless Personal Communications*, vol. 123, pp. 3223–3240, apr 2022.

[284] A. Razaque, F. Amsaad, M. J. Khan, A. S. Toksanovna, A. Oun, and M. Almiani, "Privacy Preserving Medium Access Control Protocol for wireless Body Area Sensor Networks," in *Proceedings of the IEEE National Aerospace Electronics Conference, NAECON*, vol. 2019-July, pp. 212–217, IEEE, jul 2019.

[285] G. K. Reddy and M. A. Rawoof, "Low Power Mac Protocol in Wban for E-Heath Application," *International Journal of Advanced Research in Computer Science*, vol. 5, no. 8, 2014.

[286] N.-E. E. Rikli and A. Al-Mazroa, "Design of an adaptive medium access control protocol for wireless body area networks with heterogeneous sensors," *International Journal of Distributed Sensor Networks*, vol. 15, p. 155014771986155, jul 2019.

[287] F. Rismanian Yazdi, M. Hosseinzadeh, and S. Jabbehdari, "DTEC-MAC: Diverse Traffic with Guarantee Energy Consumption for MAC in Wireless Body Area Networks," *Journal of AI and Data Mining*, vol. 9, no. 3, pp. 403–414, 2021.

[288] A. Roshini and K. Kiran, "MAC-Based Physiological signal extraction approach for WBAN on Body Postures," in *2022 4th International Conference on Smart Systems and Inventive Technology (ICSSIT)*, pp. 377–381, IEEE, jan 2022.

[289] S. Roy, I. Mallik, A. Poddar, and S. Moulik, "PAG-MAC: Prioritized Allocation of GTSs in IEEE 802.15.4 MAC protocol - A dynamic approach based on Analytic Hierarchy Process," in *2017 14th IEEE India Council International Conference, INDICON 2017*, pp. 1–6, IEEE, dec 2018.

[290] P. A. N. RUI, "Design & implementation of low power MAC protocol for wireless body area network.," 2014.

[291] S. Sadra, "Development of efficient medium access control protocols for wireless body area networks," 2018.

[292] B. P. Sahoo, *ADAPTIVE MAC PROTOCOL DESIGN FOR ENERGY EFFICIENT AND RELIABLE WBAN LINK*. PhD Thesis, 2015.

[293] A. Sahoo, R. K. Lenka, T. Samal, and B. R. Parida, "Honey-Bee based Load Balanced Packet Scheduling MAC Protocol for IoT-enabled Healthcare System," in *2022 International Conference on Emerging Smart Computing and Informatics (ESCI)*, pp. 1–7, IEEE, 2022.

[294] M. Salayma, A. Al-Dubai, and I. Romdhani, "Reliability and energy efficiency enhancement in wireless body area networks for e-health," in *Conference of Open Innovation Association, FRUCT*, FRUCT'19, (Helsinki, Uusimaa, FIN), pp. 203–211, IEEE, 2017.

[295] T. K. Samal and M. R. Kabat, "Fuzzy constraints notification MAC protocol in wireless body area neworks," in *Proceedings of the 2019 6th International Conference on Computing for Sustainable Global Development, INDIACom 2019*, pp. 675–679, IEEE, 2019.

[296] T. Samal and M. R. Kabat, "Energy Efficient Real Time Reliable MAC Protocol for Wireless Body Area Network," in *2019 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT)*, pp. 1–6, IEEE, IEEE, jul 2019.

[297] T. Samal, M. R. Kabat, and S. B. B. Priyadarshini, "Energy Saving Delay Constraint MAC Protocol in Wireless Body Area Network," in *Smart Innovation, Systems and Technologies* (D. Mishra, R. Buyya, P. Mohapatra, and S. Patnaik, eds.), vol. 194, pp. 623–630, Singapore: Springer, 2021.

[298] P. Sarkar, "Quality of Service Aware MAC Protocol for Cognitive Radio Based Wireless Body Area Network," 2016.

[299] A. V. Shankar and L. Jacob, "A Game theoretic approach for performance enhancement of IEEE 802.15.6 based WBAN," in *2016 International Conference on Signal Processing and Communication (ICSC)*, pp. 37–42, IEEE, dec 2016.

[300] J. Shao, "A CSMA/CA Based MAC Layer Solution for Inter-WBAN Interference and Starvation," 2015.

[301] A. H. Sharmila and N. Jaisankar, "E-MHMS: enhanced MAC-based secure delay-aware healthcare monitoring system in WBAN," *Cluster Computing*, vol. 23, no. 3, pp. 1725–1740, 2020.

[302] Haeyeon Shin, Yena Kim, and SuKyoung Lee, "A Backoff Counter Reservation scheme for performance improvement in Wireless Body Area Networks," in *2015 12th Annual IEEE Consumer Communications and Networking Conference (CCNC)*, pp. 625–630, IEEE, jan 2015.

[303] K. M. Silva, M. R. Yuce, and J. Y. Khan, "A multiple access protocol for UWB wireless body area networks (WBANs) with narrow-band feedback path," in *Proceedings of the 4th International Symposium on Applied Sciences in Biomedical and Communication Technologies - ISABEL '11*, ISABEL '11, (New York, New York, USA), pp. 1–5, ACM Press, 2011.

[304] V. Singh, M. Gupta, and M. Sharma, "Data dissemination with dynamic timeline in Wireless Body Area Network," in *ACM International Conference Proceeding Series*, vol. 06-07-Marc, (New York, New York, USA), pp. 1–5, ACM Press, 2015.

[305] S. S. Nidhi and D. Sridharan, "Energy efficient mac protocol for priority based transmission in wban,"

[306] H. Su and Z. Wang, "Distributed access scheme for body area networks," in *Proceedings of the International Conference on Sensing Technology, ICST*, pp. 858–862, IEEE, dec 2013.

[307] N. Sultana, F. Huq, M. A. Razzaque, and M. M. Rahman, "Prioritized IEEE 802.15.6 MAC Protocol for Wireless Body Area Network," in *2019 International Conference on Sustainable Technologies for Industry 4.0 (STI)*, pp. 1–5, IEEE, IEEE, dec 2019.

[308] F. Sun, C. Yi, and Y. Li, "Battery-friendly scheduling policy in MAC layer for WBAN data packets transmission," *IET Communications*, vol. 11, pp. 1423–1430, jun 2017.

[309] S. M, S. . R. R, S. P, and V. R, "Enhancing Energy in WBAN through Cognitive Radio Networks," *INTERNATIONAL JOURNAL OF ADVANCED INFORMATION AND COMMUNICATION TECHNOLOGY*, vol. 4, pp. 80–84, may 2020.

[310] G. Tamilselvan and A. Shanmugam, "Fuzzy-Logic Based Medium Access Control Model for Battery Lifetime Enhancement in Wireless Body Area Networks," *Journal of Engineering and Technology*, vol. 4, no. 2, p. 137, 2014.

[311] G. M. Tamilselvan and A. Sureshkumar, "Fuzzy rough set theory based MAC model for wireless body area networks," *Test Engineering and Management*, vol. 83, pp. 3330–3342, 2020.

[312] P. Thippun, A. Booranawong, and D. Buranapanichkit, "A priority-based data transmission for energy efficiency mac protocol with wireless body area networks," *ECTI Transactions on Computer and Information Technology*, vol. 17, pp. 183–191, 2023.

[313] K. M. S. Thotahewa, J.-M. Redouté, and M. R. Yuce, "Design and Simulation of a MAC Protocol for WBAN Communication Scenarios," in *Ultra Wideband Wireless Body Area Networks*, pp. 37–66, Cham: Springer International Publishing, 2014.

[314] N. Torabi and V. C. Leung, "Robust access for wireless body area networks in public m-health," in *BODYNETS 2012 - 7th International Conference on Body Area Networks*, BodyNets '12, (Brussels, BEL), pp. 170–176, ICST (Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering), 2012.

[315] H.-W. W. Tseng, Y.-B. B. Wang, Y. Yang, and R.-Y. Y. Wu, "An Adaptive Channel Hopping Scheme in IEEE 802.15.6-Based Wireless Body Area Networks," in *2019 Eleventh International Conference on Ubiquitous and Future Networks (ICUFN)*, vol. 2019-July, pp. 402–406, IEEE, IEEE, jul 2019.

[316] S. Ullah, P. Khan, and K. S. Kwak, "On The Development of Low-power MAC Protocol for WBANs," *Lecture Notes in Engineering and Computer Science*, vol. 2174, no. 1, pp. 310–314, 2009.

[317] S. Ullah, P. Khan, N. Ullah, and K. S. Kwak, "MAC-bridging for multi-PHYs communication in BAN," *Sensors (Switzerland)*, vol. 10, no. 11, pp. 9919–9934, 2010.

[318] S. Ullah, M. M. Hassan, M. Shamim Hossain, and A. Alelaiwi, "Performance evaluation of rts/cts scheme in beacon-enabled ieee 802.15.6 mac protocol for wireless body area networks," *Sensors (Switzerland)*, vol. 20, no. 8, pp. 1–16, 2020.

[319] S. K. Upadhayay and M. Gupta, "LEC-TMAC: Improved Energy Consumption & Latency in TMAC Protocol for Wireless Body Area Network (WBANs)," *Telekominika Indonesian Journal of Electrical Engineering*, vol. 15, no. 3, pp. 430–435, 2015.

[320] M. Usman, M. Qaraqe, M. R. Asghar, and I. S. Ansari, "Energy Efficient Wireless Body Area Networks: Proximity-based Clustering in Medical Implants," in *2020 IEEE Eighth International Conference on Communications and Networking (ComNet)*, pp. 1–5, IEEE, oct 2020.

[321] V. T. Venkateswarlu, P. V. Naganjaneyulu, and D. N. Rao, "PC-MAC: Priority constrained and congestion aware mac protocol for multicasting in wireless body sensor networks," *Journal of Theoretical and Applied Information Technology*, vol. 95, no. 14, pp. 3383–3393, 2017.

[322] A. Y. Vohra, "A priority based MAC protocol for Wireless Body Area Networks (WBANs)," 2011.

[323] A. Vohra, M. Sarkar, and G. Lee, "A smart transmission scheme for emergency data from a network of bio-sensors on the human body," in *2012 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems (MFI)*, pp. 200–205, IEEE, sep 2012.

[324] G. Yang, X. W. Wu, Y. Li, and Q. Ye, "Energy efficient protocol for routing and scheduling in wireless body area networks," *Wireless Networks*, vol. 26, no. 2, pp. 1265–1273, 2020.

[325] X. Yuan, Z. Ma, W. Li, H. Wang, C. Li, and K. Zhang, "An IEEE 802.15.6-Based MAC Frame Aggregation Approach for Wireless Body Area Networks," in *2019 11th International Conference on Wireless Communications and Signal Processing (WCSP)*, pp. 1–6, IEEE, IEEE, oct 2019.

[326] X. Yuan, J. Han, J. Pan, K. Zhang, C. Li, and Q. Ye, "2TM-MAC: A two-tier multi-channel interference mitigation MAC protocol for coexisting WBANs," *2019 IEEE Global Communications Conference, GLOBECOM 2019 - Proceedings*, pp. 2–7, dec 2019.

[327] A. Zeb, S. Wakeel, T. Rahman, I. Khan, M. I. Uddin, and B. Niazi, "Energy-Efficient Cluster Formation in IoT-Enabled Wireless Body Area Network," *Computational Intelligence and Neuroscience*, vol. 2022, 2022.

[328] X. Zhang, H. Jiang, X. Chen, L. Zhang, and Z. Wang, "An energy efficient implementation of on-demand mac protocol in medical wireless body sensor networks," in *2009 IEEE International Symposium on Circuits and Systems (ISCAS)*, pp. 3094–3097, 2009.

[329] B. Zhang, C. Li, Z. Liu, X. Yuan, and L. Yang, "On energy-delay efficiency for WBAN: A multi-channel scheme," in *2015 IEEE/CIC International Conference on Communications in China, ICCC 2015*, pp. 1–5, IEEE, nov 2016.

[330] C. Zhang, Y. Wang, Y. Liang, M. Shu, J. Zhang, and L. Ni, "Low duty-cycling MAC protocol for low data-rate medical wireless body area networks," *Sensors*, vol. 17, p. 1134, may 2017.

[331] H. Zhang, "Reliable and Efficient Transmission in Wireless Body Area Networks," 2018.

[332] W. Zhang, "A data fusion privacy protection strategy with low energy consumption based on time slot allocation and relay in WBAN," *Peer-to-Peer Networking and Applications*, vol. 12, no. 6, pp. 1575–1584, 2019.

[333] J. Zhou, A. Guo, J. Xu, H. Nguyen, S. Su, I. Engineering, Aihuang Guo, S. Su, Hung Nguyen, and Jing Zhou, "A game theory control scheme in medium access for wireless body area network," *IET Seminar Digest*, vol. 2014, no. 3, pp. 404–409, 2014.

[334] D. Ri and Q. Dqg, *Enhanced Reliability of Wireless Body Area Network with abnormality detection and intelligent Medium Access Control*. PhD Thesis, 2015.

[335] Y. Zhou, *Energy Efficient Wireless Body Area Network Design in Health Monitoring Scenarios*. PhD Thesis, University of British Columbia, 2017.

[336] Y. Zia, F. Bashir, and K. N. Qureshi, "Dynamic superframe adaptation using group-based media access control for handling traffic heterogeneity in wireless body area networks," *International Journal of Distributed Sensor Networks*, vol. 16, p. 155014772094914, aug 2020.