LAMPIRAN C

HASIL SIMULASI

Normalisasi Energi data MLII subyek 1 (matriks berukuran [4x20])

Columns 1 through 10

0.9995	0.9999	0.9995	0.9992	0.9987	0.9996	0.9991	0.9996	0.9998	0.9983
0.0002	0.0001	0.0002	0.0002	0.0002	0.0003	0.0002	0.0003	0.0002	0.0002
0.0053	0.0013	0.0022	0.0024	0.0056	0.0031	0.0037	0.0073	0.0015	0.0021
0.0326	0.0106	0.0308	0.0401	0.0509	0.0269	0.0429	0.0268	0.0209	0.0586

Columns 11 through 20

0.9988	0.9991	0.9990	0.9979	0.9972	0.9975	0.9981	0.9989	0.9978	0.9984
0.0003	0.0004	0.0007	0.0010	0.0003	0.0004	0.0008	0.0002	0.0003	0.0003
0.0037	0.0024	0.0070	0.0105	0.0052	0.0043	0.0246	0.0041	0.0057	0.0046
0.0490	0.0431	0.0440	0.0643	0.0745	0.0699	0.0567	0.0469	0.0657	0.0558

Normalisasi Energi data V1 subyek 1(matriks berukuran [4x20])

Columns 1 through 10

1.0000	1.0000	1.0000	1.0000	0.9999	0.9998	0.9999	0.9999	1.0000	0.9999
0.0004	0.0008	0.0010	0.0009	0.0017	0.0023	0.0024	0.0021	0.0015	0.0017
0.0020	0.0036	0.0054	0.0044	0.0089	0.0121	0.0104	0.0087	0.0045	0.0092
0.0036	0.0056	0.0033	0.0017	0.0071	0.0169	0.0098	0.0082	0.0048	0.0109

Columns 11 through 20

0.9999	0.9999	0.9999	1.0000	0.9999	0.9955	0.9995	0.9999	1.0000	0.9999
0.0025	0.0013	0.0012	0.0010	0.0025	0.0124	0.0051	0.0016	0.0007	0.0014
0.0120	0.0062	0.0093	0.0036	0.0131	0.0700	0.0188	0.0058	0.0041	0.0060
0.0102	0.0086	0.0088	0.0065	0.0109	0.0625	0.0237	0.0117	0.0059	0.0083

Input sebagai masukan bagi JST data MLII, V1 subyek 1,3,5 (matriks berukuran [8x60])

Input ini merupakan penggabungan nilai normalisasi energi tiap segmen MLII dan V1 subyek 1,3, dan 5.

Columns 1 through 10

0.9995	0.9999	0.9995	0.9992	0.9987	0.9996	0.9991	0.9996	0.9998	0.9983
0.0002	0.0001	0.0002	0.0002	0.0002	0.0003	0.0002	0.0003	0.0002	0.0002
0.0053	0.0013	0.0022	0.0024	0.0056	0.0031	0.0037	0.0073	0.0015	0.0021
0.0326	0.0106	0.0308	0.0401	0.0509	0.0269	0.0429	0.0268	0.0209	0.0586
1.0000	1.0000	1.0000	1.0000	0.9999	0.9998	0.9999	0.9999	1.0000	0.9999
0.0004	0.0008	0.0010	0.0009	0.0017	0.0023	0.0024	0.0021	0.0015	0.0017
0.0020	0.0036	0.0054	0.0044	0.0089	0.0121	0.0104	0.0087	0.0045	0.0092
0.0036	0.0056	0.0033	0.0017	0.0071	0.0169	0.0098	0.0082	0.0048	0.0109

Columns 11 through 20

0.9981	0.9997	0.9973	0.9969	0.9882	0.9944	0.9946	0.9980	0.9995	0.9939
0.0004	0.0003	0.0002	0.0004	0.0003	0.0004	0.0005	0.0002	0.0004	0.0008
0.0016	0.0041	0.0028	0.0027	0.0040	0.0040	0.0116	0.0058	0.0068	0.0076
0.0610	0.0221	0.0737	0.0780	0.1529	0.1054	0.1029	0.0624	0.0303	0.1099
1.0000	1.0000	0.9999	0.9999	1.0000	0.9999	0.9991	0.9980	1.0000	0.9998
0.0001	0.0002	0.0022	0.0007	0.0003	0.0003	0.0017	0.0059	0.0002	0.0005
0.0005	0.0010	0.0108	0.0039	0.0019	0.0017	0.0132	0.0359	0.0015	0.0030
0.0022	0.0081	0.0113	0.0099	0.0052	0.0099	0.0391	0.0512	0.0076	0.0211

Columns 21 through 30

0.9995	0.9997	0.9996	0.9958	0.9984	0.9987	0.9995	0.9998	0.9991	0.9991
0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
0.0027	0.0021	0.0015	0.0028	0.0022	0.0040	0.0026	0.0026	0.0028	0.0047
0.0305	0.0234	0.0299	0.0912	0.0558	0.0499	0.0330	0.0207	0.0434	0.0431
0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
0.0006	0.0004	0.0005	0.0004	0.0004	0.0005	0.0004	0.0003	0.0005	0.0004
0.0124	0.0118	0.0118	0.0100	0.0078	0.0052	0.0054	0.0075	0.0085	0.0075

Columns 31 through 40

1.0000	0.9999	1.0000	0.9999	1.0000	0.9999	0.9998	1.0000	1.0000	1.0000
0.0001	0.0002	0.0001	0.0002	0.0001	0.0002	0.0001	0.0002	0.0001	0.0001
0.0006	0.0007	0.0007	0.0009	0.0006	0.0008	0.0010	0.0008	0.0007	0.0007
0.0026	0.0134	0.0062	0.0144	0.0045	0.0119	0.0188	0.0089	0.0072	0.0083
1.0000	0.9999	1.0000	0.9999	0.9999	0.9999	0.9999	0.9997	0.9999	0.9999
0.0004	0.0009	0.0008	0.0012	0.0010	0.0017	0.0011	0.0028	0.0014	0.0020
0.0020	0.0036	0.0022	0.0040	0.0033	0.0056	0.0062	0.0114	0.0043	0.0082
0.0077	0.0123	0.0045	0.0098	0.0128	0.0083	0.0146	0.0191	0.0158	0.0133

Columns 41 through 50

0.9998	0.9999	0.9998	0.9997	0.9999	1.0000	0.9999	0.9998	0.9998	0.9998
0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
0.0019	0.0007	0.0005	0.0018	0.0005	0.0011	0.0019	0.0010	0.0007	0.0011
0.0194	0.0143	0.0177	0.0241	0.0126	0.0080	0.0121	0.0206	0.0192	0.0222
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
0.0001	0.0005	0.0005	0.0002	0.0001	0.0001	0.0001	0.0002	0.0001	0.0000
0.0014	0.0044	0.0032	0.0020	0.0014	0.0014	0.0016	0.0012	0.0010	0.0005

Columns 51 through 60

0.9999	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	1.0000
0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
0.0028	0.0034	0.0012	0.0029	0.0013	0.0019	0.0014	0.0018	0.0022	0.0007
0.0118	0.0084	0.0112	0.0071	0.0055	0.0073	0.0087	0.0044	0.0129	0.0048
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	1.0000
0.0001	0.0002	0.0002	0.0001	0.0002	0.0001	0.0001	0.0001	0.0002	0.0001
0.0020	0.0013	0.0038	0.0016	0.0027	0.0017	0.0023	0.0017	0.0007	0.0019
0.0028	0.0090	0.0063	0.0059	0.0084	0.0028	0.0069	0.0073	0.0162	0.0062

Inisalisasi input (matriks berukuran [8x2])

p =

0	1
0	1
0	1
0	1
0	1
0	1
0	1
0	1

Pendefenisian target (matriks berukuran [2x60])

t =

Columns 1 through 10

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1

Columns 11 through 20

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1

Columns 21 through 30

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1

Columns 31 through 40

1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0

Columns 41 through 50

1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0

Columns 51 through 60

1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0

Hasil Simulasi JST Kiteria 2 data MLII, V1 subyek 1,2,3 (matriks berukuran [2x60])

Columns 1 through 10

0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0000	0.0000	0.0000	0.0000
0.9997	0.9997	0.9998	0.9999	0.9999	0.9843	1.0000	0.9998	0.9999	0.9999

Columns 11 through 20

0.0000	0.0000	0.0000	1.0000	0.0000	0.0003	0.9996	0.0000	0.0000	0.0000
0.9999	0.9999	1.0000	0.0000	1.0000	0.9989	0.0006	1.0000	1.0000	0.9999

Columns 21 through 30

0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0115	0.0000	0.0000	0.0000
1.0000	0.9990	0.9999	0.9999	0.9999	0.9999	0.9881	0.9999	0.9999	0.9999

Columns 31 through 40

1.0000	0.9993	1.0000	1.0000	0.9999	0.0001	0.9998	0.0000	1.0000	0.9993
0.0000	0.0018	0.0000	0.0001	0.0002	0.9997	0.0003	1.0000	0.0000	0.0009

Columns 41 through 50

0.9999	1.0000	1.0000	1.0000	0.9892	0.9999	0.0118	0.9858	1.0000	0.9992
0.0000	0.0000	0.0000	0.0000	0.3550	0.0001	0.9882	0.0206	0.0000	0.0032

Columns 51 through 60

1.0000	0.9995	0.9988	0.9998	1.0000	0.9961	0.1468	0.9983	1.0000	0.0000
0.0000	0.0010	0.0023	0.0004	0.0001	0.0081	0.8743	0.0012	0.0000	0.9999

Hasil Simulasi JST Kiteria 2 data MLII, V1 subyek 1,2,3 (matriks berukuran [2x60])
diubah ke bilangan bulat terdekat dengan menggunakan fungsi *round* pada matlab

Columns 1 through 15

0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1	1	1	1	1	1	1	1	1	1	1	1	1	0	1

Columns 16 through 30

0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1	1	1	1

Columns 31 through 45

1	1	1	1	1	0	1	0	1	1	1	1	1	1	1
0	0	0	0	0	1	0	1	0	0	0	0	0	0	0

Columns 46 through 60

1	0	1	1	1	1	1	1	1	1	1	0	1	1	0
0	1	0	0	0	0	0	0	0	0	0	1	0	0	1

$$s = \begin{bmatrix} 000000000000010010000000000000 \\ 111111111111101101111111111111 \end{bmatrix}$$

$$v = \begin{bmatrix} 111110101111111101111111110110 \\ 000001010000000010000000001001 \end{bmatrix}$$

Element matriks s yang menunjukkan $\begin{pmatrix} 0 \\ 1 \end{pmatrix}$, menunjukkan tingkat keberhasilan JST mengenali pola *supraventricular*, Element matriks v yang menunjukkan $\begin{pmatrix} 1 \\ 0 \end{pmatrix}$, menunjukkan tingkat keberhasilan JST mengenali pola *ventricular*.

Persentase keberhasilan JST ini dihitung dengan cara menjumlahkan element matriks s dan element matriks v, dibagi 60 (total data uji). Dari hasil di atas didapat :

$$\left(\frac{28+26}{60} \right) \times 100\% = 88{,}83\ \%$$

Normalisasi Energi data Sig 0 subyek 2 (matriks berukuran [4x20])

Columns 1 through 10

0.9974	0.9794	0.9994	0.9999	0.9954	0.9990	0.9853	0.9942	0.9990	0.9980
0.0096	0.0098	0.0034	0.0040	0.0178	0.0046	0.0095	0.0046	0.0064	0.0038
0.0119	0.0135	0.0080	0.0095	0.0636	0.0199	0.0204	0.0153	0.0187	0.0178
0.0709	0.2013	0.0342	0.0082	0.0688	0.0406	0.1695	0.1063	0.0389	0.0601

Columns 11 through 20

0.9861	0.9993	0.9986	0.9892	0.9984	0.9918	0.9972	0.9777	0.9993	0.9903
0.0067	0.0070	0.0091	0.0183	0.0071	0.0033	0.0086	0.0138	0.0067	0.0183
0.0303	0.0168	0.0221	0.0248	0.0122	0.0083	0.0110	0.0481	0.0192	0.0528
0.1632	0.0330	0.0480	0.1432	0.0546	0.1277	0.0731	0.2040	0.0306	0.1271

Input sebagai masukan bagi JST data Sig 0 subyek latih 2,5,6 subyek uji 3,4,7 (matriks berukuran [4x60])

Input ini merupakan normalisasi energi tiap segmen Sig 0 subyek 1,3, dan 5

Columns 1 through 10

0.9974	0.9794	0.9994	0.9999	0.9954	0.9990	0.9853	0.9942	0.9990	0.9980
0.0096	0.0098	0.0034	0.0040	0.0178	0.0046	0.0095	0.0046	0.0064	0.0038
0.0119	0.0135	0.0080	0.0095	0.0636	0.0199	0.0204	0.0153	0.0187	0.0178
0.0709	0.2013	0.0342	0.0082	0.0688	0.0406	0.1695	0.1063	0.0389	0.0601

Columns 11 through 20

0.6515	0.5245	0.8145	0.8605	0.9074	0.6023	0.7193	0.4572	0.8852	0.7136
0.1382	0.0885	0.0658	0.1106	0.0757	0.1404	0.1163	0.0998	0.0329	0.0689
0.6351	0.7265	0.3635	0.3956	0.3159	0.7371	0.2860	0.7877	0.3846	0.4106
0.3913	0.4351	0.4474	0.3014	0.2664	0.2723	0.6223	0.4007	0.2597	0.5634

Columns 21 through 30

0.9612	0.9998	0.9999	0.9854	0.9911	0.9243	0.9437	0.9718	0.9829	0.9018
0.0370	0.0010	0.0014	0.0032	0.0074	0.0209	0.0122	0.0066	0.0107	0.0128
0.1678	0.0041	0.0097	0.0242	0.0872	0.1610	0.1350	0.1075	0.1113	0.0523
0.2157	0.0188	0.0137	0.1687	0.1007	0.3453	0.3016	0.2097	0.1460	0.4288

Columns 31 through 40

1.0000	0.9983	0.9999	1.0000	0.9999	1.0000	0.9999	1.0000	0.9999	0.9996
0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0003	0.0014	0.0007	0.0004	0.0012	0.0006	0.0010	0.0004	0.0006	0.0020
0.0047	0.0588	0.0130	0.0052	0.0151	0.0080	0.0172	0.0094	0.0101	0.0270

Columns 41 through 50

0.9964	0.9999	0.9935	0.9993	0.9998	0.9997	0.9990	0.9982	0.9998	0.9940
0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0002	0.0002	0.0001	0.0002
0.0068	0.0048	0.0028	0.0062	0.0009	0.0029	0.0043	0.0040	0.0018	0.0051
0.0841	0.0152	0.1138	0.0370	0.0200	0.0242	0.0437	0.0592	0.0187	0.1089

Columns 51 through 60

0.9994	0.9748	0.9998	0.9827	0.9994	0.9960	0.9935	0.9995	0.9789	0.9998
0.0001	0.0005	0.0003	0.0006	0.0004	0.0006	0.0004	0.0003	0.0007	0.0004
0.0035	0.0134	0.0092	0.0043	0.0024	0.0086	0.0125	0.0123	0.0062	0.0015
0.0338	0.2227	0.0188	0.1850	0.0347	0.0889	0.1131	0.0300	0.2044	0.0207

Inisalisasi input (matriks berukuran [4x2])

p =

0	1
0	1
0	1
0	1

Pendefenisian target (matriks berukuran [2x60])

t =

Columns 1 through 10

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1

Columns 11 through 20

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1

Columns 21 through 30

0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1

Columns 31 through 40

1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0

Columns 41 through 50

1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0

Columns 51 through 60

1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0

Hasil Simulasi JST Kiteria 3 data Sig 0 subyek latih 2,5,6 subyek uji 3,4,7 (matriks berukuran [2x60])

Columns 1 through 10

0.0002	0.0002	0.0001	0.0002	0.9833	0.0002	0.0002	0.0002	0.0001	0.0007
0.9998	0.9994	0.9998	0.9998	0.0403	0.9998	0.9998	0.9998	0.9998	0.9992

Columns 11 through 20

0.0002	0.0002	0.0002	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998

Columns 21 through 30

0.0002	0.0002	0.0008	0.0002	0.0001	0.0001	0.0002	0.0002	0.0002	0.0019
0.9998	0.9998	0.9984	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9962

Columns 31 through 40

0.9987	0.9987	0.9987	0.9987	0.9987	0.9987	0.9987	0.9987	0.9987	0.9987
0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020

Columns 41 through 50

0.9963	0.9821	0.9616	0.9974	0.1304	0.9973	0.0010	0.9959	0.9974	0.0007
0.0049	0.0352	0.0522	0.0035	0.7985	0.0036	0.9980	0.0056	0.0035	0.9986

Columns 51 through 60

0.9986	0.9987	0.9987	0.9987	0.9987	0.9987	0.9986	0.9984	0.9802	0.9984
0.0021	0.0020	0.0020	0.0020	0.0020	0.0020	0.0021	0.0023	0.0218	0.0023

Hasil Simulasi JST Kiteria 3 data Sig 0 subyek latih 2,5,6 subyek uji 3,4,7 (matriks berukuran [2x60])

diubah ke bilangan bulat terdekat dengan menggunakan fungsi *round* pada matlab

Columns 1 through 15

0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1	1	1	1	0	1	1	1	1	1	1	1	1	1	1

Columns 16 through 30

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Columns 31 through 45

1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Columns 46 through 60

1	0	1	1	0	1	1	1	1	1	1	1	1	1	1
0	1	0	0	1	0	0	0	0	0	0	0	0	0	0

$$s = \begin{bmatrix} 000010000000000000000000000000 \\ 111101111111111111111111111111 \end{bmatrix}$$

$$v = \begin{bmatrix} 111111111111110101101111111111 \\ 000000000000001010010000000000 \end{bmatrix}$$

Element matriks s yang menunjukkan $\begin{pmatrix} 0 \\ 1 \end{pmatrix}$, menunjukkan tingkat keberhasilan JST mengenali pola *supraventricular*, Element matriks v yang menunjukkan $\begin{pmatrix} 1 \\ 0 \end{pmatrix}$, menunjukkan tingkat keberhasilan JST mengenali pola *ventricular.*

Persentase keberhasilan JST ini dihitung dengan cara menjumlahkan element matriks s dan element matriks v, dibagi 60 (total data uji). Dari hasil di atas didapat :

$$\left(\frac{29 + 27}{60} \right) \times 100\% = 93{,}33\%$$