**1)**

**Attribute Evaluator: CFsSubsetEval**

**Search Method : BestFit**

**Using full training set**

**Output:**

**Selected attributes: 4,18,41,63,77,79,80,81,82 : 9**

**3.0**

**17.0**

**40.0**

**62.0**

**76.0**

**78.0**

**79.0**

**80.0**

**81.0**

**2)**

**Attribute Evaluator: CorrelationAttributeEval**

**Search Method : Ranker**

**Using full training set**

**=== Attribute Selection on all input data ===**

**Search Method:**

**Attribute ranking.**

**Attribute Evaluator (supervised, Class (numeric): 83 82.0):**

**Correlation Ranking Filter**

**Ranked attributes:**

**0.4117 79 78.0**

**0.4114 4 3.0**

**0.4082 35 34.0**

**0.4056 5 4.0**

**0.3947 80 79.0**

**0.3866 36 35.0**

**0.3855 39 38.0**

**0.3794 49 48.0**

**0.3774 37 36.0**

**0.3759 73 72.0**

**0.3753 68 67.0**

**0.3741 69 68.0**

**0.3735 67 66.0**

**0.3715 21 20.0**

**0.3708 82 81.0**

**0.3689 46 45.0**

**0.3682 66 65.0**

**0.3669 45 44.0**

**0.3647 70 69.0**

**0.3645 64 63.0**

**0.3645 74 73.0**

**0.3643 75 74.0**

**0.3636 65 64.0**

**0.3632 72 71.0**

**0.3613 81 80.0**

**0.3609 71 70.0**

**0.354 6 5.0**

**0.3438 40 39.0**

**0.3326 76 75.0**

**0.3186 56 55.0**

**0.3078 57 56.0**

**0.3039 38 37.0**

**0.2996 47 46.0**

**0.2941 55 54.0**

**0.292 41 40.0**

**0.2604 77 76.0**

**0.2437 8 7.0**

**0.2313 42 41.0**

**0.2275 48 47.0**

**0.1703 3 2.0**

**0.1664 10 9.0**

**0.1651 14 13.0**

**0.1521 13 12.0**

**0.1448 9 8.0**

**0.1423 11 10.0**

**0.1422 1 0.0**

**0.138 7 6.0**

**0.1374 2 1.0**

**0.1373 12 11.0**

**0.1098 18 17.0**

**0.063 78 77.0**

**0 54 53.0**

**0 58 57.0**

**0 59 58.0**

**0 16 15.0**

**0 15 14.0**

**0 52 51.0**

**0 53 52.0**

**0 61 60.0**

**0 51 50.0**

**0 44 43.0**

**0 43 42.0**

**0 17 16.0**

**0 60 59.0**

**0 19 18.0**

**0 20 19.0**

**0 30 29.0**

**0 31 30.0**

**0 32 31.0**

**0 33 32.0**

**0 34 33.0**

**0 29 28.0**

**0 28 27.0**

**0 27 26.0**

**0 23 22.0**

**0 62 61.0**

**0 22 21.0**

**0 50 49.0**

**0 26 25.0**

**0 25 24.0**

**0 24 23.0**

**-0.0699 63 62.0**

**Selected attributes: 79,4,35,5,80,36,39,49,37,73,68,69,67,21,82,46,66,45,70,64,74,75,65,72,81,71,6,40,76,56,57,38,47,55,41,77,8,42,48,3,10,14,13,9,11,1,7,2,12,18,78,54,58,59,16,15,52,53,61,51,44,43,17,60,19,20,30,31,32,33,34,29,28,27,23,62,22,50,26,25,24,63 : 82**

**3)**

**Attribute Evaluator: PrincipalComponent**

**Search Method : Ranker**

**Using full training set**

**=== Attribute Selection on all input data ===**

**Search Method:**

**Attribute ranking.**

**Attribute Evaluator (unsupervised):**

**Principal Components Attribute Transformer**

**Correlation matrix**

**1 0.99 0.9 0.42 0.44 0.21 0.96 0.74 0.96 0.8 0.99 1 0.99 0.88 -0.03 0.27 0.4 0.41 0.39 0.33 0.45 0.21 0.25 0.59 0.39 0.39 0.22 0.54 0.4 0.71 0.52 0.7 -0.13 0.37 0.33 0.37 0.34 0.3 0.37 0.42 0.41 0.41 0.35 0.45 0.33 0.54 0.16 0.11 0.43 0.34 0.3 0.31**

**0.99 1 0.88 0.4 0.44 0.2 0.97 0.72 0.97 0.8 1 0.98 0.99 0.86 -0.03 0.26 0.4 0.39 0.39 0.33 0.44 0.2 0.27 0.65 0.37 0.38 0.21 0.54 0.39 0.72 0.49 0.7 -0.13 0.36 0.31 0.36 0.34 0.3 0.36 0.41 0.4 0.41 0.34 0.44 0.33 0.55 0.19 0.11 0.4 0.31 0.26 0.28**

**0.9 0.88 1 0.52 0.53 0.31 0.84 0.81 0.85 0.87 0.91 0.9 0.92 1 -0.04 0.39 0.5 0.52 0.5 0.39 0.55 0.32 0.25 0.49 0.49 0.49 0.31 0.58 0.5 0.72 0.64 0.72 -0.16 0.47 0.45 0.48 0.49 0.43 0.49 0.54 0.53 0.53 0.47 0.56 0.47 0.63 0.14 0.11 0.51 0.45 0.38 0.4**

**0.42 0.4 0.52 1 0.98 0.86 0.4 0.59 0.42 0.46 0.42 0.42 0.45 0.53 -0.03 0.95 0.98 0.99 0.97 0.87 0.97 0.87 0.4 0.42 0.97 0.97 0.86 0.7 0.97 0.73 0.84 0.74 -0.14 0.96 0.95 0.96 0.94 0.96 0.98 0.98 0.97 0.98 0.98 0.97 0.96 0.88 0.11 0.2 0.85 0.85 0.75 0.77**

**0.44 0.44 0.53 0.98 1 0.89 0.44 0.57 0.45 0.48 0.45 0.44 0.49 0.53 -0.03 0.93 0.99 0.97 0.98 0.91 0.98 0.88 0.45 0.54 0.97 0.97 0.88 0.72 0.96 0.76 0.8 0.76 -0.14 0.95 0.94 0.95 0.95 0.95 0.97 0.98 0.97 0.97 0.97 0.98 0.95 0.91 0.15 0.2 0.81 0.81 0.69 0.71**

**0.21 0.2 0.31 0.86 0.89 1 0.2 0.33 0.22 0.26 0.22 0.21 0.24 0.32 -0.03 0.84 0.92 0.86 0.88 0.92 0.83 0.97 0.4 0.41 0.86 0.86 0.89 0.57 0.83 0.51 0.62 0.53 -0.12 0.83 0.82 0.83 0.83 0.85 0.85 0.84 0.83 0.83 0.85 0.83 0.84 0.75 0.08 0.15 0.67 0.68 0.56 0.58**

**0.96 0.97 0.84 0.4 0.44 0.2 1 0.78 1 0.76 0.97 0.96 0.96 0.82 -0.03 0.29 0.4 0.4 0.4 0.34 0.45 0.21 0.24 0.61 0.4 0.4 0.22 0.56 0.42 0.75 0.54 0.72 -0.13 0.4 0.36 0.4 0.35 0.31 0.37 0.42 0.4 0.41 0.35 0.44 0.34 0.54 0.2 0.13 0.44 0.35 0.3 0.33**

**0.74 0.72 0.81 0.59 0.57 0.33 0.78 1 0.79 0.78 0.73 0.75 0.78 0.81 -0.04 0.5 0.54 0.59 0.56 0.4 0.61 0.34 0.23 0.34 0.59 0.6 0.37 0.59 0.63 0.76 0.8 0.74 -0.2 0.62 0.61 0.61 0.56 0.53 0.58 0.61 0.61 0.61 0.57 0.62 0.57 0.62 0.18 0.19 0.62 0.58 0.53 0.57**

**0.96 0.97 0.85 0.42 0.45 0.22 1 0.79 1 0.78 0.97 0.96 0.97 0.84 -0.03 0.3 0.41 0.41 0.41 0.35 0.46 0.22 0.24 0.61 0.41 0.41 0.23 0.56 0.43 0.76 0.55 0.73 -0.13 0.42 0.37 0.41 0.36 0.33 0.38 0.43 0.41 0.42 0.36 0.46 0.35 0.55 0.2 0.13 0.45 0.37 0.31 0.34**

**0.8 0.8 0.87 0.46 0.48 0.26 0.76 0.78 0.78 1 0.81 0.8 0.84 0.86 -0.02 0.34 0.45 0.45 0.46 0.35 0.5 0.27 0.21 0.48 0.43 0.44 0.27 0.49 0.45 0.7 0.58 0.69 -0.15 0.43 0.4 0.43 0.51 0.38 0.42 0.48 0.47 0.47 0.41 0.5 0.43 0.59 0.2 0.08 0.44 0.4 0.31 0.34**

**0.99 1 0.91 0.42 0.45 0.22 0.97 0.73 0.97 0.81 1 0.99 0.99 0.89 -0.03 0.28 0.41 0.41 0.4 0.34 0.46 0.22 0.26 0.63 0.39 0.39 0.22 0.55 0.4 0.73 0.51 0.71 -0.13 0.37 0.33 0.37 0.36 0.31 0.38 0.43 0.41 0.42 0.36 0.46 0.34 0.56 0.18 0.11 0.42 0.33 0.28 0.3**

**1 0.98 0.9 0.42 0.44 0.21 0.96 0.75 0.96 0.8 0.99 1 0.99 0.89 -0.03 0.28 0.4 0.42 0.4 0.33 0.46 0.22 0.22 0.58 0.39 0.39 0.22 0.54 0.41 0.71 0.52 0.7 -0.13 0.37 0.33 0.37 0.35 0.31 0.38 0.42 0.41 0.42 0.36 0.45 0.34 0.55 0.16 0.11 0.44 0.35 0.31 0.32**

**0.99 0.99 0.92 0.45 0.49 0.24 0.96 0.78 0.97 0.84 0.99 0.99 1 0.9 -0.04 0.32 0.44 0.45 0.44 0.37 0.5 0.24 0.24 0.61 0.43 0.43 0.25 0.58 0.45 0.76 0.56 0.73 -0.15 0.42 0.37 0.42 0.4 0.35 0.42 0.47 0.46 0.46 0.4 0.5 0.39 0.59 0.19 0.13 0.45 0.38 0.32 0.34**

**0.88 0.86 1 0.53 0.53 0.32 0.82 0.81 0.84 0.86 0.89 0.89 0.9 1 -0.04 0.4 0.5 0.53 0.51 0.4 0.55 0.33 0.22 0.46 0.5 0.5 0.33 0.58 0.51 0.72 0.65 0.72 -0.16 0.48 0.46 0.49 0.5 0.44 0.5 0.55 0.54 0.54 0.48 0.57 0.48 0.63 0.12 0.12 0.52 0.46 0.39 0.41**

**-0.03 -0.03 -0.04 -0.03 -0.03 -0.03 -0.03 -0.04 -0.03 -0.02 -0.03 -0.03 -0.04 -0.04 1 -0.02 -0.03 -0.03 -0.02 0.01 -0.03 -0.03 -0.03 -0.04 -0.02 -0.02 0.04 -0.03 -0.03 -0.04 -0.04 -0.04 -0.02 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.03 -0.01 -0.01 -0.03 -0.03 -0.03 -0.03**

**0.27 0.26 0.39 0.95 0.93 0.84 0.29 0.5 0.3 0.34 0.28 0.28 0.32 0.4 -0.02 1 0.94 0.95 0.95 0.88 0.93 0.86 0.3 0.32 0.95 0.96 0.89 0.66 0.95 0.63 0.75 0.62 -0.13 0.95 0.95 0.95 0.93 0.99 0.97 0.94 0.94 0.94 0.98 0.92 0.97 0.78 0.12 0.21 0.78 0.84 0.73 0.75**

**0.4 0.4 0.5 0.98 0.99 0.92 0.4 0.54 0.41 0.45 0.41 0.4 0.44 0.5 -0.03 0.94 1 0.97 0.98 0.92 0.97 0.92 0.43 0.5 0.97 0.97 0.9 0.7 0.96 0.72 0.79 0.73 -0.14 0.95 0.94 0.95 0.95 0.95 0.97 0.97 0.96 0.97 0.97 0.97 0.95 0.89 0.14 0.19 0.81 0.81 0.7 0.71**

**0.41 0.39 0.52 0.99 0.97 0.86 0.4 0.59 0.41 0.45 0.41 0.42 0.45 0.53 -0.03 0.95 0.97 1 0.98 0.89 0.98 0.88 0.29 0.39 0.98 0.98 0.88 0.71 0.98 0.72 0.84 0.74 -0.14 0.96 0.96 0.97 0.95 0.96 0.98 0.98 0.98 0.98 0.98 0.97 0.96 0.88 0.1 0.19 0.85 0.86 0.76 0.78**

**0.39 0.39 0.5 0.97 0.98 0.88 0.4 0.56 0.41 0.46 0.4 0.4 0.44 0.51 -0.02 0.95 0.98 0.98 1 0.93 0.99 0.9 0.29 0.44 0.99 0.99 0.91 0.71 0.98 0.73 0.81 0.73 -0.14 0.97 0.96 0.97 0.97 0.97 0.98 0.98 0.98 0.98 0.98 0.98 0.97 0.91 0.13 0.19 0.82 0.83 0.71 0.74**

**0.33 0.33 0.39 0.87 0.91 0.92 0.34 0.4 0.35 0.35 0.34 0.33 0.37 0.4 0.01 0.88 0.92 0.89 0.93 1 0.88 0.95 0.23 0.47 0.91 0.9 0.94 0.61 0.87 0.61 0.65 0.6 -0.13 0.87 0.85 0.87 0.86 0.88 0.88 0.88 0.87 0.87 0.89 0.87 0.87 0.79 0.12 0.17 0.66 0.69 0.55 0.58**

**0.45 0.44 0.55 0.97 0.98 0.83 0.45 0.61 0.46 0.5 0.46 0.46 0.5 0.55 -0.03 0.93 0.97 0.98 0.99 0.88 1 0.85 0.3 0.45 0.98 0.98 0.88 0.69 0.98 0.75 0.81 0.75 -0.13 0.96 0.95 0.97 0.96 0.95 0.98 0.98 0.97 0.98 0.97 0.98 0.95 0.91 0.15 0.18 0.82 0.82 0.73 0.74**

**0.21 0.2 0.32 0.87 0.88 0.97 0.21 0.34 0.22 0.27 0.22 0.22 0.24 0.33 -0.03 0.86 0.92 0.88 0.9 0.95 0.85 1 0.23 0.38 0.88 0.88 0.92 0.58 0.84 0.52 0.63 0.53 -0.11 0.84 0.84 0.85 0.84 0.87 0.86 0.85 0.84 0.85 0.87 0.84 0.85 0.76 0.08 0.16 0.68 0.7 0.57 0.6**

**0.25 0.27 0.25 0.4 0.45 0.4 0.24 0.23 0.24 0.21 0.26 0.22 0.24 0.22 -0.03 0.3 0.43 0.29 0.29 0.23 0.3 0.23 1 0.47 0.28 0.29 0.2 0.25 0.3 0.31 0.28 0.31 -0.09 0.3 0.29 0.3 0.27 0.32 0.32 0.34 0.33 0.34 0.32 0.34 0.33 0.34 0.09 0.1 0.3 0.24 0.22 0.19**

**0.59 0.65 0.49 0.42 0.54 0.41 0.61 0.34 0.61 0.48 0.63 0.58 0.61 0.46 -0.04 0.32 0.5 0.39 0.44 0.47 0.45 0.38 0.47 1 0.39 0.39 0.31 0.42 0.39 0.67 0.35 0.64 -0.07 0.38 0.32 0.37 0.4 0.33 0.37 0.41 0.39 0.4 0.36 0.44 0.35 0.52 0.29 0.12 0.34 0.27 0.21 0.21**

**0.39 0.37 0.49 0.97 0.97 0.86 0.4 0.59 0.41 0.43 0.39 0.39 0.43 0.5 -0.02 0.95 0.97 0.98 0.99 0.91 0.98 0.88 0.28 0.39 1 1 0.92 0.71 0.99 0.7 0.82 0.7 -0.14 0.98 0.98 0.98 0.95 0.97 0.99 0.98 0.98 0.98 0.98 0.97 0.97 0.88 0.11 0.21 0.83 0.84 0.73 0.76**

**0.39 0.38 0.49 0.97 0.97 0.86 0.4 0.6 0.41 0.44 0.39 0.39 0.43 0.5 -0.02 0.96 0.97 0.98 0.99 0.9 0.98 0.88 0.29 0.39 1 1 0.91 0.71 1 0.72 0.83 0.71 -0.14 0.99 0.98 0.99 0.96 0.97 0.99 0.98 0.98 0.98 0.99 0.98 0.97 0.88 0.11 0.2 0.84 0.85 0.74 0.77**

**0.22 0.21 0.31 0.86 0.88 0.89 0.22 0.37 0.23 0.27 0.22 0.22 0.25 0.33 0.04 0.89 0.9 0.88 0.91 0.94 0.88 0.92 0.2 0.31 0.92 0.91 1 0.48 0.87 0.49 0.6 0.49 -0.11 0.87 0.86 0.87 0.85 0.89 0.88 0.86 0.85 0.86 0.89 0.85 0.87 0.75 0.11 0.13 0.61 0.64 0.53 0.54**

**0.54 0.54 0.58 0.7 0.72 0.57 0.56 0.59 0.56 0.49 0.55 0.54 0.58 0.58 -0.03 0.66 0.7 0.71 0.71 0.61 0.69 0.58 0.25 0.42 0.71 0.71 0.48 1 0.72 0.71 0.75 0.7 -0.12 0.72 0.71 0.71 0.7 0.69 0.72 0.75 0.75 0.75 0.71 0.75 0.73 0.74 0 0.32 0.73 0.74 0.56 0.66**

**0.4 0.39 0.5 0.97 0.96 0.83 0.42 0.63 0.43 0.45 0.4 0.41 0.45 0.51 -0.03 0.95 0.96 0.98 0.98 0.87 0.98 0.84 0.3 0.39 0.99 1 0.87 0.72 1 0.74 0.85 0.74 -0.14 0.99 0.99 0.99 0.95 0.97 0.98 0.98 0.98 0.98 0.98 0.98 0.97 0.88 0.12 0.21 0.86 0.87 0.77 0.8**

**0.71 0.72 0.72 0.73 0.76 0.51 0.75 0.76 0.76 0.7 0.73 0.71 0.76 0.72 -0.04 0.63 0.72 0.72 0.73 0.61 0.75 0.52 0.31 0.67 0.7 0.72 0.49 0.71 0.74 1 0.86 0.99 -0.15 0.73 0.69 0.73 0.72 0.64 0.69 0.73 0.73 0.73 0.68 0.75 0.67 0.79 0.26 0.24 0.73 0.67 0.62 0.65**

**0.52 0.49 0.64 0.84 0.8 0.62 0.54 0.8 0.55 0.58 0.51 0.52 0.56 0.65 -0.04 0.75 0.79 0.84 0.81 0.65 0.81 0.63 0.28 0.35 0.82 0.83 0.6 0.75 0.85 0.86 1 0.88 -0.17 0.84 0.85 0.85 0.81 0.78 0.82 0.85 0.85 0.85 0.81 0.85 0.81 0.83 0.12 0.26 0.82 0.79 0.73 0.78**

**0.7 0.7 0.72 0.74 0.76 0.53 0.72 0.74 0.73 0.69 0.71 0.7 0.73 0.72 -0.04 0.62 0.73 0.74 0.73 0.6 0.75 0.53 0.31 0.64 0.7 0.71 0.49 0.7 0.74 0.99 0.88 1 -0.15 0.72 0.69 0.72 0.73 0.64 0.69 0.74 0.73 0.74 0.68 0.76 0.67 0.82 0.24 0.22 0.75 0.68 0.63 0.66**

**-0.13 -0.13 -0.16 -0.14 -0.14 -0.12 -0.13 -0.2 -0.13 -0.15 -0.13 -0.13 -0.15 -0.16 -0.02 -0.13 -0.14 -0.14 -0.14 -0.13 -0.13 -0.11 -0.09 -0.07 -0.14 -0.14 -0.11 -0.12 -0.14 -0.15 -0.17 -0.15 1 -0.13 -0.13 -0.13 -0.13 -0.13 -0.14 -0.14 -0.14 -0.14 -0.13 -0.14 -0.14 -0.12 -0.04 -0.05 -0.13 -0.13 -0.13 -0.13**

**0.37 0.36 0.47 0.96 0.95 0.83 0.4 0.62 0.42 0.43 0.37 0.37 0.42 0.48 -0.03 0.95 0.95 0.96 0.97 0.87 0.96 0.84 0.3 0.38 0.98 0.99 0.87 0.72 0.99 0.73 0.84 0.72 -0.13 1 1 1 0.95 0.97 0.97 0.97 0.97 0.97 0.97 0.96 0.97 0.86 0.12 0.19 0.85 0.86 0.75 0.79**

**0.33 0.31 0.45 0.95 0.94 0.82 0.36 0.61 0.37 0.4 0.33 0.33 0.37 0.46 -0.03 0.95 0.94 0.96 0.96 0.85 0.95 0.84 0.29 0.32 0.98 0.98 0.86 0.71 0.99 0.69 0.85 0.69 -0.13 1 1 1 0.94 0.96 0.97 0.97 0.97 0.97 0.97 0.96 0.97 0.85 0.1 0.19 0.85 0.87 0.76 0.8**

**0.37 0.36 0.48 0.96 0.95 0.83 0.4 0.61 0.41 0.43 0.37 0.37 0.42 0.49 -0.03 0.95 0.95 0.97 0.97 0.87 0.97 0.85 0.3 0.37 0.98 0.99 0.87 0.71 0.99 0.73 0.85 0.72 -0.13 1 1 1 0.95 0.97 0.97 0.97 0.97 0.97 0.98 0.96 0.97 0.87 0.12 0.18 0.86 0.87 0.75 0.79**

**0.34 0.34 0.49 0.94 0.95 0.83 0.35 0.56 0.36 0.51 0.36 0.35 0.4 0.5 -0.03 0.93 0.95 0.95 0.97 0.86 0.96 0.84 0.27 0.4 0.95 0.96 0.85 0.7 0.95 0.72 0.81 0.73 -0.13 0.95 0.94 0.95 1 0.96 0.95 0.96 0.95 0.96 0.96 0.96 0.96 0.9 0.16 0.16 0.83 0.85 0.7 0.75**

**0.3 0.3 0.43 0.96 0.95 0.85 0.31 0.53 0.33 0.38 0.31 0.31 0.35 0.44 -0.03 0.99 0.95 0.96 0.97 0.88 0.95 0.87 0.32 0.33 0.97 0.97 0.89 0.69 0.97 0.64 0.78 0.64 -0.13 0.97 0.96 0.97 0.96 1 0.98 0.97 0.96 0.97 0.99 0.95 0.99 0.83 0.11 0.19 0.81 0.86 0.73 0.76**

**0.37 0.36 0.49 0.98 0.97 0.85 0.37 0.58 0.38 0.42 0.38 0.38 0.42 0.5 -0.03 0.97 0.97 0.98 0.98 0.88 0.98 0.86 0.32 0.37 0.99 0.99 0.88 0.72 0.98 0.69 0.82 0.69 -0.14 0.97 0.97 0.97 0.95 0.98 1 0.99 0.99 0.99 1 0.98 0.98 0.87 0.1 0.22 0.82 0.85 0.73 0.75**

**0.42 0.41 0.54 0.98 0.98 0.84 0.42 0.61 0.43 0.48 0.43 0.42 0.47 0.55 -0.03 0.94 0.97 0.98 0.98 0.88 0.98 0.85 0.34 0.41 0.98 0.98 0.86 0.75 0.98 0.73 0.85 0.74 -0.14 0.97 0.97 0.97 0.96 0.97 0.99 1 1 1 0.99 1 0.98 0.93 0.1 0.2 0.83 0.85 0.72 0.75**

**0.41 0.4 0.53 0.97 0.97 0.83 0.4 0.61 0.41 0.47 0.41 0.41 0.46 0.54 -0.03 0.94 0.96 0.98 0.98 0.87 0.97 0.84 0.33 0.39 0.98 0.98 0.85 0.75 0.98 0.73 0.85 0.73 -0.14 0.97 0.97 0.97 0.95 0.96 0.99 1 1 1 0.99 1 0.98 0.92 0.09 0.21 0.83 0.84 0.72 0.75**

**0.41 0.41 0.53 0.98 0.97 0.83 0.41 0.61 0.42 0.47 0.42 0.42 0.46 0.54 -0.03 0.94 0.97 0.98 0.98 0.87 0.98 0.85 0.34 0.4 0.98 0.98 0.86 0.75 0.98 0.73 0.85 0.74 -0.14 0.97 0.97 0.97 0.96 0.97 0.99 1 1 1 0.99 1 0.98 0.92 0.09 0.2 0.83 0.84 0.72 0.75**

**0.35 0.34 0.47 0.98 0.97 0.85 0.35 0.57 0.36 0.41 0.36 0.36 0.4 0.48 -0.03 0.98 0.97 0.98 0.98 0.89 0.97 0.87 0.32 0.36 0.98 0.99 0.89 0.71 0.98 0.68 0.81 0.68 -0.13 0.97 0.97 0.98 0.96 0.99 1 0.99 0.99 0.99 1 0.98 0.99 0.86 0.1 0.21 0.82 0.85 0.73 0.76**

**0.45 0.44 0.56 0.97 0.98 0.83 0.44 0.62 0.46 0.5 0.46 0.45 0.5 0.57 -0.03 0.92 0.97 0.97 0.98 0.87 0.98 0.84 0.34 0.44 0.97 0.98 0.85 0.75 0.98 0.75 0.85 0.76 -0.14 0.96 0.96 0.96 0.96 0.95 0.98 1 1 1 0.98 1 0.97 0.95 0.1 0.19 0.83 0.83 0.71 0.74**

**0.33 0.33 0.47 0.96 0.95 0.84 0.34 0.57 0.35 0.43 0.34 0.34 0.39 0.48 -0.03 0.97 0.95 0.96 0.97 0.87 0.95 0.85 0.33 0.35 0.97 0.97 0.87 0.73 0.97 0.67 0.81 0.67 -0.14 0.97 0.97 0.97 0.96 0.99 0.98 0.98 0.98 0.98 0.99 0.97 1 0.87 0.09 0.19 0.82 0.87 0.73 0.77**

**0.54 0.55 0.63 0.88 0.91 0.75 0.54 0.62 0.55 0.59 0.56 0.55 0.59 0.63 -0.03 0.78 0.89 0.88 0.91 0.79 0.91 0.76 0.34 0.52 0.88 0.88 0.75 0.74 0.88 0.79 0.83 0.82 -0.12 0.86 0.85 0.87 0.9 0.83 0.87 0.93 0.92 0.92 0.86 0.95 0.87 1 0.11 0.14 0.78 0.73 0.61 0.64**

**0.16 0.19 0.14 0.11 0.15 0.08 0.2 0.18 0.2 0.2 0.18 0.16 0.19 0.12 -0.01 0.12 0.14 0.1 0.13 0.12 0.15 0.08 0.09 0.29 0.11 0.11 0.11 0 0.12 0.26 0.12 0.24 -0.04 0.12 0.1 0.12 0.16 0.11 0.1 0.1 0.09 0.09 0.1 0.1 0.09 0.11 1 0.13 0.07 0.07 0.05 0.05**

**0.11 0.11 0.11 0.2 0.2 0.15 0.13 0.19 0.13 0.08 0.11 0.11 0.13 0.12 -0.01 0.21 0.19 0.19 0.19 0.17 0.18 0.16 0.1 0.12 0.21 0.2 0.13 0.32 0.21 0.24 0.26 0.22 -0.05 0.19 0.19 0.18 0.16 0.19 0.22 0.2 0.21 0.2 0.21 0.19 0.19 0.14 0.13 1 0.22 0.18 0.27 0.28**

**0.43 0.4 0.51 0.85 0.81 0.67 0.44 0.62 0.45 0.44 0.42 0.44 0.45 0.52 -0.03 0.78 0.81 0.85 0.82 0.66 0.82 0.68 0.3 0.34 0.83 0.84 0.61 0.73 0.86 0.73 0.82 0.75 -0.13 0.85 0.85 0.86 0.83 0.81 0.82 0.83 0.83 0.83 0.82 0.83 0.82 0.78 0.07 0.22 1 0.96 0.88 0.92**

**0.34 0.31 0.45 0.85 0.81 0.68 0.35 0.58 0.37 0.4 0.33 0.35 0.38 0.46 -0.03 0.84 0.81 0.86 0.83 0.69 0.82 0.7 0.24 0.27 0.84 0.85 0.64 0.74 0.87 0.67 0.79 0.68 -0.13 0.86 0.87 0.87 0.85 0.86 0.85 0.85 0.84 0.84 0.85 0.83 0.87 0.73 0.07 0.18 0.96 1 0.88 0.94**

**0.3 0.26 0.38 0.75 0.69 0.56 0.3 0.53 0.31 0.31 0.28 0.31 0.32 0.39 -0.03 0.73 0.7 0.76 0.71 0.55 0.73 0.57 0.22 0.21 0.73 0.74 0.53 0.56 0.77 0.62 0.73 0.63 -0.13 0.75 0.76 0.75 0.7 0.73 0.73 0.72 0.72 0.72 0.73 0.71 0.73 0.61 0.05 0.27 0.88 0.88 1 0.96**

**0.31 0.28 0.4 0.77 0.71 0.58 0.33 0.57 0.34 0.34 0.3 0.32 0.34 0.41 -0.03 0.75 0.71 0.78 0.74 0.58 0.74 0.6 0.19 0.21 0.76 0.77 0.54 0.66 0.8 0.65 0.78 0.66 -0.13 0.79 0.8 0.79 0.75 0.76 0.75 0.75 0.75 0.75 0.76 0.74 0.77 0.64 0.05 0.28 0.92 0.94 0.96 1**

**eigenvalue proportion cumulative**

**33.96168 0.65311 0.65311 -0.16873.0-0.16869.0-0.16771.0-0.16748.0-0.16738.0...**

**7.82311 0.15044 0.80355 -0.2891.0-0.28710.0-0.2850.0-0.28411.0-0.2796.0...**

**1.76802 0.034 0.83755 -0.38581.0-0.36480.0+0.33841.0-0.26879.0-0.2678.0...**

**1.25365 0.02411 0.86166 -0.47877.0-0.4776.0-0.42240.0-0.35841.0-0.18354.0...**

**1.02888 0.01979 0.88145 0.74 17.0-0.40862.0+0.35876.0-0.26940.0+0.16377.0...**

**0.9931 0.0191 0.90055 -0.59762.0+0.53140.0-0.49176.0+0.19917.0-0.12177.0...**

**0.9641 0.01854 0.91909 0.64862.0+0.61217.0-0.30376.0+0.15740.0+0.13947.0...**

**0.88872 0.01709 0.93618 0.75677.0-0.34276.0+0.23347.0-0.19540.0-0.14517.0...**

**0.67389 0.01296 0.94914 -0.42640.0+0.35341.0-0.2957.0-0.2589.0-0.20877.0...**

**0.55733 0.01072 0.95986 -0.38756.0-0.35254.0-0.31455.0+0.28980.0-0.28375.0...**

**Eigenvectors**

**V1 V2 V3 V4 V5 V6 V7 V8 V9 V10**

**-0.097 -0.2852 0.0366 0.0611 -0.0199 0.0113 0.0297 0.0513 0.071 0.1604 0.0**

**-0.0953 -0.2887 0.079 0.024 -0.0192 0.0085 0.0366 0.0451 0.0806 0.1036 1.0**

**-0.112 -0.2384 -0.0194 0.1434 -0.0042 0.0136 -0.0398 0.0201 -0.1908 0.0597 2.0**

**-0.1662 0.0627 0.0227 -0.0106 -0.0297 0.0446 0.0123 -0.0265 -0.0538 0.0524 3.0**

**-0.1668 0.0494 0.1169 -0.0572 -0.0284 0.0483 0.0201 -0.0125 -0.0154 -0.0117 4.0**

**-0.1404 0.1237 0.2236 -0.0309 -0.0386 0.0768 0.0062 0.0816 0.0934 0.1133 5.0**

**-0.0977 -0.279 0.0199 0.0007 0.0079 -0.0248 0.0291 0.0352 0.1256 0.0916 6.0**

**-0.1218 -0.1705 -0.1993 0.0594 0.0736 -0.0342 -0.1113 -0.0543 -0.2949 0.0079 7.0**

**-0.0999 -0.2786 0.0161 0.0122 0.0087 -0.0262 0.0233 0.0287 0.1041 0.0875 8.0**

**-0.1014 -0.2246 -0.0015 0.1058 0.0599 -0.0406 -0.0837 -0.0807 -0.2581 -0.1188 9.0**

**-0.0979 -0.2869 0.0644 0.0432 -0.0193 0.0091 0.0307 0.0439 0.0624 0.1131 10.0**

**-0.0976 -0.284 0.0249 0.0743 -0.0104 -0.0047 0.0233 0.0598 0.081 0.1524 11.0**

**-0.1044 -0.2788 0.0332 0.059 0.0049 -0.0172 0.0042 0.0442 0.0291 0.081 12.0**

**-0.1129 -0.2309 -0.0343 0.1623 0.0013 0.0065 -0.0465 0.0293 -0.1968 0.0549 13.0**

**0.0061 0.0088 0.0358 0.0973 0.7402 0.1993 0.6116 -0.1447 -0.0404 -0.0092 17.0**

**-0.157 0.1136 0.0134 0.0084 0.0287 -0.0198 -0.0189 0.0126 -0.0342 0.1235 20.0**

**-0.1652 0.0675 0.1205 -0.0416 -0.0294 0.051 0.0153 -0.0003 -0.0001 0.0311 34.0**

**-0.1664 0.0669 0.0037 0.0438 0.0024 -0.0191 -0.0069 0.0004 0.0076 0.0285 35.0**

**-0.1665 0.0714 0.0676 0.034 0.0216 -0.0403 -0.0147 0.023 0.0279 -0.032 36.0**

**-0.149 0.086 0.226 0.0531 0.0688 -0.0572 -0.0108 0.1446 0.2027 0.0479 37.0**

**-0.1668 0.0472 0.0509 0.0359 0.0136 -0.0512 -0.0203 -0.0212 -0.0074 0.0016 38.0**

**-0.1424 0.1263 0.1903 0.0448 0.0096 -0.0275 -0.0155 0.1229 0.1776 0.0759 39.0**

**-0.0607 -0.0263 0.2123 -0.4217 -0.2691 0.5305 0.1568 -0.1953 -0.4258 0.1991 40.0**

**-0.0866 -0.1442 0.3377 -0.3581 -0.0916 0.0741 0.1135 -0.0695 0.3526 -0.1767 41.0**

**-0.1658 0.0766 0.0298 0.0513 0.03 -0.0389 -0.0095 0.0393 0.0048 0.0383 44.0**

**-0.1664 0.075 0.0175 0.0423 0.0247 -0.037 -0.0095 0.0197 0.0034 0.0269 45.0**

**-0.1417 0.1287 0.2228 0.1315 0.1108 -0.0793 -0.0399 0.0961 0.0378 0.15 46.0**

**-0.1343 -0.0484 -0.1313 -0.0401 -0.0712 0.0679 0.139 0.2334 0.096 -0.2364 47.0**

**-0.167 0.0664 -0.0264 0.0228 0.008 -0.032 -0.0124 -0.018 -0.013 0.0131 48.0**

**-0.1424 -0.1302 -0.059 -0.1826 0.0192 -0.0526 0.0227 -0.1008 0.1315 -0.3517 54.0**

**-0.1516 -0.0298 -0.2028 -0.0414 0.012 -0.0048 -0.0198 -0.0569 -0.1384 -0.3139 55.0**

**-0.1423 -0.1232 -0.0703 -0.1647 0.004 -0.0369 0.0279 -0.1259 0.1164 -0.3874 56.0**

**0.0279 0.0262 0.042 0.0286 -0.408 -0.5974 0.6479 -0.104 -0.1634 0.0764 62.0**

**-0.1649 0.0753 -0.0241 0.013 0.0096 -0.0331 -0.013 -0.0342 -0.0107 -0.0048 63.0**

**-0.1626 0.0903 -0.0512 0.032 0.005 -0.0207 -0.0161 -0.0297 -0.0502 -0.0039 64.0**

**-0.1652 0.0761 -0.0213 0.023 0.0072 -0.032 -0.0148 -0.0432 -0.0146 -0.0019 65.0**

**-0.162 0.0763 0.015 0.0229 0.0254 -0.0578 -0.0361 -0.0709 -0.0457 -0.1303 66.0**

**-0.1609 0.1044 0.0159 0.0283 0.0059 -0.004 -0.0173 0.0024 -0.0658 0.0872 67.0**

**-0.1652 0.0812 0.016 0.0379 -0.0013 -0.0084 -0.0092 0.0349 -0.0747 0.0283 68.0**

**-0.1675 0.0589 0.02 0.0417 -0.0185 0.0069 0.0015 0.008 -0.0836 -0.0594 69.0**

**-0.1664 0.0636 0.0063 0.0424 -0.0195 0.0094 0.0031 0.0214 -0.0937 -0.0805 70.0**

**-0.1671 0.061 0.0138 0.042 -0.019 0.008 0.0022 0.014 -0.0882 -0.0689 71.0**

**-0.1645 0.0889 0.016 0.035 0.001 -0.007 -0.0118 0.0247 -0.0722 0.0471 72.0**

**-0.1677 0.0452 0.0299 0.0404 -0.0216 0.0031 0.0069 0.008 -0.0741 -0.0977 73.0**

**-0.163 0.0896 -0.0056 0.0358 -0.013 0.0153 -0.0097 -0.0065 -0.0985 -0.0013 74.0**

**-0.1587 -0.0146 0.0731 0.042 -0.0466 0.0067 0.0344 -0.0341 -0.0307 -0.2831 75.0**

**-0.0258 -0.0548 0.1619 -0.4696 0.3579 -0.491 -0.3034 -0.3422 -0.1223 0.1777 76.0**

**-0.0383 -0.0032 -0.1804 -0.4785 0.1634 -0.1208 0.0962 0.7565 -0.2076 0.0337 77.0**

**-0.1492 0.0243 -0.26 -0.0878 -0.056 0.0621 0.0693 -0.1242 0.1593 0.1075 78.0**

**-0.148 0.0603 -0.2685 -0.04 -0.0338 0.0351 0.0315 -0.1348 0.1533 0.1381 79.0**

**-0.129 0.0535 -0.3641 -0.1304 -0.022 0.0498 0.0449 -0.1239 0.1893 0.289 80.0**

**-0.1345 0.0521 -0.385 -0.118 -0.0168 0.0316 0.0481 -0.0971 0.1948 0.183 81.0**

**Ranked attributes:**

**0.3469 1 -0.16873.0-0.16869.0-0.16771.0-0.16748.0-0.16738.0...**

**0.1964 2 -0.2891.0-0.28710.0-0.2850.0-0.28411.0-0.2796.0...**

**0.1624 3 -0.38581.0-0.36480.0+0.33841.0-0.26879.0-0.2678.0...**

**0.1383 4 -0.47877.0-0.4776.0-0.42240.0-0.35841.0-0.18354.0...**

**0.1186 5 0.74 17.0-0.40862.0+0.35876.0-0.26940.0+0.16377.0...**

**0.0995 6 -0.59762.0+0.53140.0-0.49176.0+0.19917.0-0.12177.0...**

**0.0809 7 0.64862.0+0.61217.0-0.30376.0+0.15740.0+0.13947.0...**

**0.0638 8 0.75677.0-0.34276.0+0.23347.0-0.19540.0-0.14517.0...**

**0.0509 9 -0.42640.0+0.35341.0-0.2957.0-0.2589.0-0.20877.0...**

**0.0401 10 -0.38756.0-0.35254.0-0.31455.0+0.28980.0-0.28375.0...**

**Selected attributes: 1,2,3,4,5,6,7,8,9,10 : 10**

**4)**

**Attribute Evaluator: ReliefAttributeEval**

**Search Method : Ranker**

**Using full training set**

**== Attribute Selection on all input data ===**

**Search Method:**

**Attribute ranking.**

**Attribute Evaluator (supervised, Class (numeric): 83 82.0):**

**ReliefF Ranking Filter**

**Instances sampled: all**

**Number of nearest neighbours (k): 10**

**Equal influence nearest neighbours**

**Ranked attributes:**

**0.08904 82 81.0**

**0.08748 81 80.0**

**0.08482 79 78.0**

**0.0815 41 40.0**

**0.06715 80 79.0**

**0.06459 77 76.0**

**0.06223 48 47.0**

**0.06052 55 54.0**

**0.0599 56 55.0**

**0.05786 57 56.0**

**0.05285 76 75.0**

**0.05227 8 7.0**

**0.04877 42 41.0**

**0.03742 67 66.0**

**0.03422 65 64.0**

**0.03386 21 20.0**

**0.03376 4 3.0**

**0.03181 10 9.0**

**0.03164 64 63.0**

**0.0315 40 39.0**

**0.03129 6 5.0**

**0.03084 68 67.0**

**0.03079 66 65.0**

**0.03076 38 37.0**

**0.03039 49 48.0**

**0.03036 36 35.0**

**0.02993 75 74.0**

**0.02938 39 38.0**

**0.02896 5 4.0**

**0.02863 35 34.0**

**0.02823 47 46.0**

**0.0273 45 44.0**

**0.02707 74 73.0**

**0.02692 71 70.0**

**0.02673 78 77.0**

**0.02652 46 45.0**

**0.02603 69 68.0**

**0.02564 73 72.0**

**0.02531 72 71.0**

**0.02481 70 69.0**

**0.0226 37 36.0**

**0.02199 14 13.0**

**0.02073 3 2.0**

**0.01757 18 17.0**

**0.01757 12 11.0**

**0.0169 13 12.0**

**0.01611 1 0.0**

**0.01555 7 6.0**

**0.01551 9 8.0**

**0.01388 11 10.0**

**0.01353 2 1.0**

**0 20 19.0**

**0 23 22.0**

**0 22 21.0**

**0 62 61.0**

**0 19 18.0**

**0 15 14.0**

**0 16 15.0**

**0 17 16.0**

**0 50 49.0**

**0 25 24.0**

**0 54 53.0**

**0 58 57.0**

**0 26 25.0**

**0 53 52.0**

**0 52 51.0**

**0 43 42.0**

**0 44 43.0**

**0 51 50.0**

**0 59 58.0**

**0 60 59.0**

**0 61 60.0**

**0 28 27.0**

**0 27 26.0**

**0 30 29.0**

**0 29 28.0**

**0 31 30.0**

**0 24 23.0**

**0 34 33.0**

**0 33 32.0**

**0 32 31.0**

**-0.0078 63 62.0**

**Selected attributes: 82,81,79,41,80,77,48,55,56,57,76,8,42,67,65,21,4,10,64,40,6,68,66,38,49,36,75,39,5,35,47,45,74,71,78,46,69,73,72,70,37,14,3,18,12,13,1,7,9,11,2,20,23,22,62,19,15,16,17,50,25,54,58,26,53,52,43,44,51,59,60,61,28,27,30,29,31,24,34,33,32,63 : 82**