CMSE492 Seminar 2 06.04.2021 Task

1. Embed data from the following secret binary data as much as possible,

S=’ 1 1 0 1 0 1 0 1 0 1 0 0 0 0 1 0 1 1 0 1 1 1 1 0 1 0 1 1 0’,

into the cover image, CI=(190, 255, 161, 100, 1, 159, 15, 56, 192, 195, 10, 15) by Wu and Tsai’s method [1] using range table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| k | uk | lk | Widthk=uk-lk+1 | Bitsk=log2(widthk) |
| 1 | 0 | 7 | 8 | 3 |
| 2 | 8 | 15 | 8 | 3 |
| 3 | 16 | 31 | 16 | 4 |
| 4 | 32 | 63 | 32 | 5 |
| 5 | 64 | 127 | 64 | 6 |
| 6 | 128 | 255 | 128 | 7 |

1. Extract the data embedded. Check that the data extracted match the data embedded
2. Results of your calculations as a pdf file named ‘CMSE492 Sem2 name sname stID.pdf’ upload into your personal Team chat to me latest by April 6, 2021, 8.00 am
3. Your homework and participation in the seminar will be graded (50% +50%)

References

1. D.-C. Wu, W.-H. Tsai, A steganographic method for images by pixel-value differencing, Pattern Recognition Letters 24 (2003) 1613–1626, [Wu&Tsai](https://staff.emu.edu.tr/alexanderchefranov/Documents/CMSE492/WuPRL2003%20PVD.pdf)