File test.m is an example of usage. It performs both Fountain and Raptor codes. For the former, flag LTFlag controls Fountain implementation between LT Fountain (according to Lubi's paper) and windowed random Matrix Fountain (according to Ian Blake paper). For the latter, Reed-Solomon outer code is used, which is ideal for erasure channel.

LT codes have linear complexity but suitable for large K (order of several thousens). Windowed random Matrix codes have polynomial complexity but can do also for small K (K>50!!!).

Notes:

1. This implementation is good for the erasure channel. Don't use it if you have a different channel (for which you need belief-propagation).
2. Since Reed-Solomon codes are used for Raptor, you need the communication toolbox. If you don't have it, you can just use the Fountain implementation which does not need any toolbox.
3. MatrixBase (base for the matrix method) can only be a prime number since the method uses Gaussian elimination. Implemented are solutions up to MatrixBase=7. For larger bases, update the lookup table in MakeLookUp.m.
4. In case MatrixBase need to be a power of prime number, you need to change the guassian elimination method to MATLAB backslash operation where matrix and vector are in gf(MatrixBase).