* Intro:
  + Thesis: This study will compare the new CryptoStat to the more established NIST and DieHarder test suites.
  + The randomness of the output of encryption is important because it can help determine the strength of the encryption
* Body:
  + Encryption
  + Randomness
  + NIST vs DieHarder vs CryptoStat
  + Measuring encryption strength using randomness
* Conclusion:

| Issue | How to test randomness? |
| --- | --- |
| Ahmad, T., & Younis, U. | NIST |
| Patil, P., Narayankar, P., Narayan, D.G. et al. | Shannon’s Formula |
| Gevorkyan, M.N., Demidova, A.V., Korol’kova, A.V. et al. | TestU01, PractRand, grand, DieHarder |
| A Statistical Test Suite for Random and Pseudorandom Number Generators for Cryptographic Applications | NIST |
| Cryptographic Randomness Testing of Block Ciphers and Hash Functions | Special one, not NIST or DieHarder |
| Testing the Randomness of Cryptographic Function Mappings | CryptoStat (java program), not NIST or DieHarder |