

## Programming Homework – MPEG Decoder

### Basic Requirement:

1. Implement a MPEG video decoder (I-frame only) with UI [1].
2. Correctly read the MPEG clips (with I, P, B frames) [2] and skip frames (e.g., B-frames) which your decoder doesn't support.
3. Submitted package *must* include: (1) source codes, (2) **windows** executables, and (3) usage documents; all should be compressed as a single *zip* file and name it as *ITCT\_MPEG\_complete-student-id.zip*, e.g., *ITCT\_MPEG\_R93940000.zip*.
4. **Conduct a personal demo to TA with your own computer.**

### Bonus:

1. P-frame decodable.
2. B-frame decodable.
3. MMX optimization.
4. MPEG encoder.
5. Any practical improvement.

### Note:

1. Slow decoding time will get some penalties.
2. The usage document should describe how to run your programs clearly.
3. Virus-infected package will get stiff penalty.
4. Do **not** include any *obj* or language-dependent files in the submitted package. The ones with unreasonable file-size will get some penalties.

### Reference:

- [1] MPEG International Standard Part 2 - Visual (ISO 11172-2).
- [2] The three MPEG clips: "I\_ONLY.M1V", "IP\_ONLY.M1V", and "IPB\_ALL.M1V".