

Topic IV - Cont'd

Performance Measurement

**Introduction to Computer Systems
Engineering**

(CPEG 323)

Relative MIPS

$$\text{Relative MIPS} = \frac{\text{Time}_{\text{reference}}}{\text{Time}_{\text{unrated}}} * \text{MIPS}_{\text{reference}}$$

Where

$\text{Time}_{\text{reference}}$ = execution time of a program on the reference machine

$\text{Time}_{\text{unrated}}$ = execution time of the same program on machine to be rated

$\text{MIPS}_{\text{reference}}$ = agreed-upon MIPS rating of the reference machine

Relative MIPS

Cont'd

Relative MIPS only tracks execution time for the given program and input. Even when they are identified, it becomes harder to find a reference machine