

Staffing Level Estimation



TutorialsSpace.com
A SIMPLE LEARNING

NORDEN WORK

Project Managers has to figure out Staff Estimation after the Efforts required to develop a Software has been determined.

Norden investigated the staffing pattern of R&D project

Norden Estimation :-

He studied the staffing patterns of R&D projects and proposed that Staffing level pattern can be approximated by **Rayleigh distribution curve** which specifies that the Relationship between applied effort and delivery time for a Software project.

It is also called **Putnam-Norden-Rayleigh Curve PNR Curve**.

He represented the Rayleigh Curve by this equation

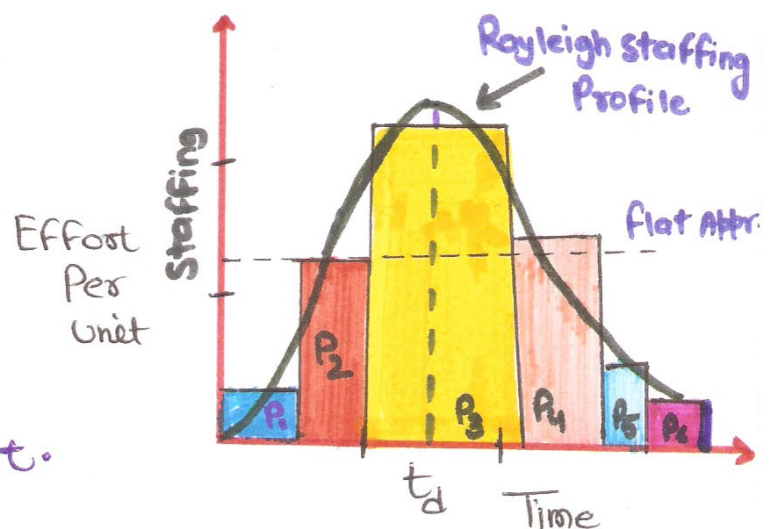
$$E = K/t_d^2 * t * e^{-t^2/2t_d^2}$$

Here

E is the effort required at time t.
(Engineers and staff)

K = Area under the Curve

t_d = time at which the Curve attains its maximum value



Rayleigh Curve

Staffing Level Estimation:



TutorialsSpace.com
A SIMPLE LEARNING

Putnam's Work

Putnam analyzed that characteristics of Software Development and Staffing has some characteristics of R and D projects studied by Nosden and Rayleigh-Nosden. We can be used to Relate the number of delivered lines of code to the effort and the time required to develop the project.

$$L = C_k K^{1/3} t_d^{4/3}$$

K = Total effort expended in PM in product development

L = The product size in KLOC

t_d = Time required to develop the software.

C_k = State-of-Technology Constraints

like **C_k = 2** (Poor development environment)

C_k = 8 (Good Software dev. Environment)

C_k = 11 (Excellent Environment)

Subscribe to our

You Tube Channel

Computer Science Lectures By E.R. Deepak Garg