الفصل الرابع عشر

التحكم ومراقبة المشروع ومفهوم القيمة المكتسبة

Project Monitoring Control and Earned (Value)

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- ("CV" Cost Variance).

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("SPI" Schedule Performance Index)

- ("CPI" Cost Performance Index) .

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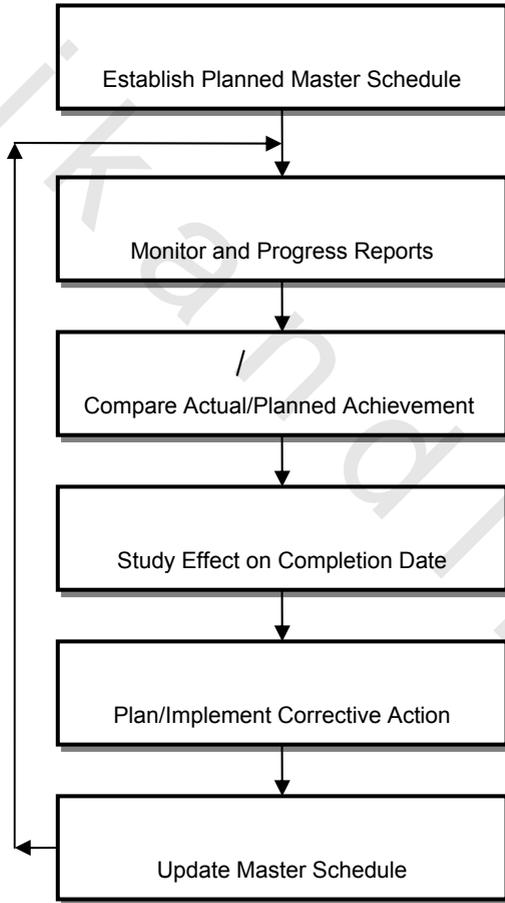
شكل(١٤-١) خطوات نظام الرقابة على وقت المشروع

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(Control)

(Comparison)   (Monitor)

.(Corrective Action)   (Analysis)

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(Monitor and Progress Reports)

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(Compare Actual/Planned Achievement)

Bar-Chart

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:Analysis))   -   -

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(Corrective Actions)   :   -   -

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-                            :(Progress Curves)

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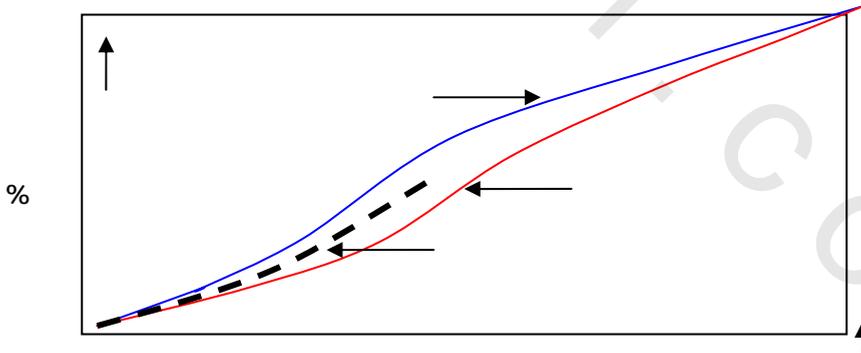
(E.S)   (-)

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شكل (٣–١٤) منحنيات تقدم سير العمل   –   تقدم جيد

شكل (١٤-٣)
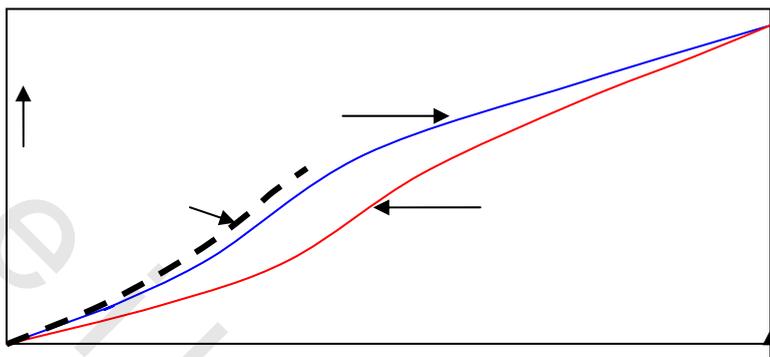
منحنيات تقدم سير العمل - مشروع متقدم عن البرنامج الزمني

شكل ١٤-٤
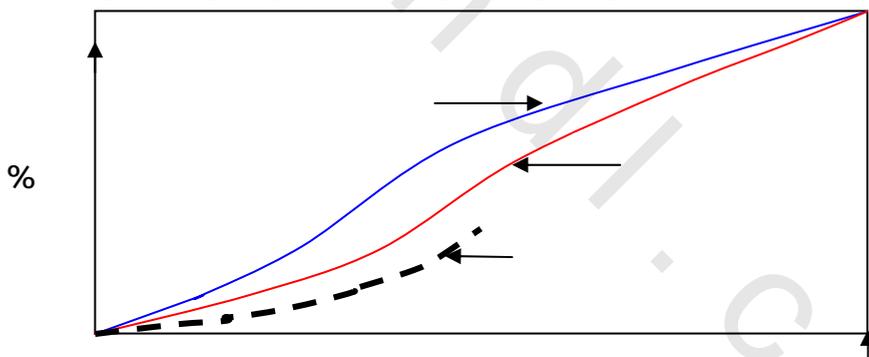
منحنيات تقدم سير العمل - مشروع متأخر عن البرنامج الزمني

– (Construction Time):

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- **(Effective Scheduling):**

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- **(Monitoring Project Status):**

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((Work Breakdown Structure) (WBS).

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(hierarchical structure)
Objectives

(WBS)

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(Long Lead Items)   .   :

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-    : (Updating the Schedule)

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.(Updating)

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.(Feedback)

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– (Controlling the Project) :

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(Float)

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- (As-Built Schedules):

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–   **(Earned Value):**

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(Cost   and   Schedule   Control   System   Criteria)
(CISCSC).

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(PMS) (Performance Measurement System)

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-                    :(The Earned Value Concept)

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(("PV" Budgeted Cost of Work Scheduled (BCWS))

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((Budgeted Cost of Work Performed (BCWP))

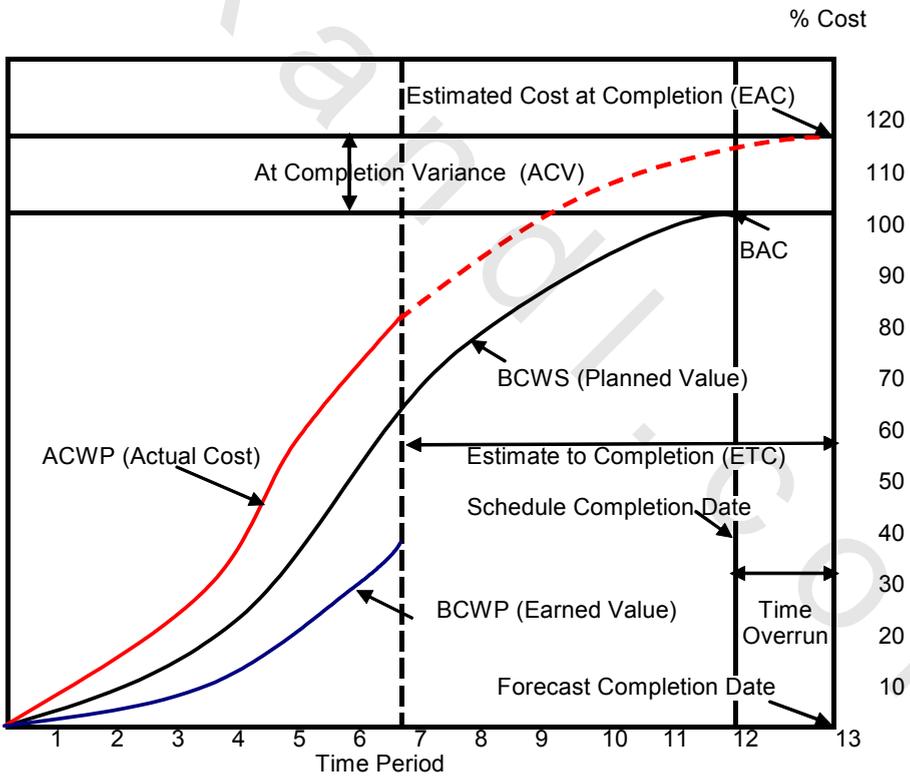(EV)

(   )

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((ACWP) Actual Cost of Work Performed(AC))

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.(ACWP)   (BCWS)

(BCWP)

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(ACWP)

:   (BCWP)   (BCWS)

- **(Schedule Variance (SV)):**

$$SV=BCWP-BCWS=EV-PV$$

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(behind schedule)

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- **((Cost Variance (CV)):**
$$CV= BCWP-ACWP= EV-AC$$

CV .

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(Schedule Performance Index (SPI))
$$SPI= BCWP/BCWS= EV/PV$$

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- **(Cost Performance Index (CPI)):**
$$CPI= BCWP/ACWP= EV/AC$$

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" .... "

                          " EAC " "Estimated at Completion
"Budgeted at   (CPI)
       :   (   )" BAC" Completion"

                          $(EAC = BAC/CPI)$

                 (BAC)   (EAC)

        . $ACV = BAC - EAC$ "ACV" " At Completion Variance"