

## Part C (Project Descriptions)

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| Project Number<br>2007/0466 (Revised) |
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### 1. School Background

Munsang College is an aided co-educational Christian day school with eighty years of history. It was established in 1926 as a private non-profit educational institution with the mission to provide quality education to the young people in Kowloon City area at a time when there were no well-organized primary and secondary schools in that part of Hong Kong.

There are six classes in each Form 1 to Form 5 level and three classes in Form 6 and Form 7 respectively in school with a total population of around 1400 students and over 80 teaching and supportive staff. The medium of instruction is English, except for Chinese, Chinese History, Putonghua and the technical and cultural subjects.

In the past few years, our school made great effort in upgrading the IT facilities, in terms of both hardware and software, with the funding provided by the government and the college council. Computers and projectors are installed in every classroom and special room to facilitate a better learning and teaching environment. Staff members, including teaching staff and clerical staff, are provided with a desktop or notebook computer. All these computers are connected together in a wired or wireless manner, to enable better communications among staff members and also to facilitate the sharing of resources among them over the intranet and the Internet. This provides a strong infrastructure to enhance the use of IT in daily operation of learning and teaching as well as administrative work in school. In addition, our school started using the eClass in 2000 for learning and teaching, and eClass (Admin) in 2003 to facilitate better internal communication among staff members and booking of resources.

With the purpose of reducing teachers' workload of administrative work, various computerized systems were developed by different staff members in the past years. A system was developed using Microsoft Visual Basic for timetabling and printing of report cards. Another two systems were developed with Microsoft Access to handle students' attendance, merit and demerit records as well as to keep record on inventories of subjects departments and working committees.

### 2. Needs Analysis

In view of the fast growing in the usage of IT and the increase of teacher's workload, our school has decided to make the best use of IT in daily administrative routines. As the current computerized administrative systems are developed by our staff members using different language platforms, maintenance and further development of the system to cope with administrative work will become increasingly difficult due to the departure of staff members and upgrade of language platforms. At present, students' academic, non-academic, merit and demerit records are being kept in different computerized systems which do not allow easy cross reference of data and immediate follow-up of students' progress. Therefore, our goal is to introduce an integrated multi-purpose platform to handle most of the daily routines and to resolve the heavy workload on our teachers in data entry, system maintenance and development. In so doing, teachers, students and parents can use the same platform to teach and learn, and to handle administrative work and communicate. Both students and teachers can surely benefit from this integrated platform as teachers can focus more on students' learning and personal development. Besides, the database of the new system should be, to some extent, compatible with WebSAMS, or able to perform data import and export to avoid repetitive data entry. Apart from WebSAMS and the self-developed computerized administrative systems, our school has been using an intranet system for our internal communication and resources sharing. Thus, the new system is expected to be compatible with our intranet system as well.

### 3. Expected functions with New Technology system

#### (a) Smart Card and Attendance System

At present, students' attendance is registered in the classroom every lesson with a computerized system written with Microsoft Access. Latecomers and students who fail to bring textbooks or reply slips are also recorded with the system. Besides, assessment on classroom cleanliness and discipline are also recorded at the end of the lesson. For outdoor activities, roll-call is taken with printed copies of attendance register and therefore data entry into computerized system afterwards becomes inevitable. All the records will be automatically processed and transferred to other administrative systems such as the Merit and demerit Record Management System and Report Card System for teachers' follow-up or printing of merit and demerit records as well as report cards. Each student is provided a student card with his/her photo and barcode information every year as a proof of identity and library card. Therefore, the new system is expected to serve the purposes mentioned and further reduce staff members' workload

in handling matters related to students' attendance as well as to be compatible with our existing library system.

(b) Merit and Demerit Record Management System

Our current computerized system for handling students' merit and demerit records is tailor-made using Microsoft Access to meet the need of school's daily routine. Therefore, the new system will be customized with a wide range of functionalities as below:

(i) Provision of comprehensive students' behavioral record and statistical reports

The new system for handling students' merit and demerit records is expected to establish a complete behavioral record of students and provide teachers as well as other staff members with various statistical reports on students' behavioral performance so as to facilitate better supervision of students and provision of timely and appropriate support for them. The reports can be generated on individual basis, by class level and for the whole school. Besides, the system can import students' attendance records and lateness records and process them automatically for punishments according to school rules and regulations. In addition, the system will also count the number of discipline issues committed by students and alert the teachers if it reaches a certain level, which can be preset by teachers. This alert function can facilitate immediate follow-ups by the teachers.

(ii) Printing of Merit and Demerit Records

Apart from making statistical reports for internal use, the new system is also expected to print Merit and Demerit Records for students and parents in order to help students better understand their behavioral performance in school and seek further improvement. At the end of the first term, there will be a comparison table of demerit records by month for their easy reference.

(iii) Assessment on Students' Conduct

In our school, teachers will give an individual assessment to each student on four different aspects, namely "Diligence", "Discipline", "Manner" and "Sociability". There will be altogether 7 grades, ranging from "A" to "F" ("A" for Excellent, "B" for Very Good, "C+" for Good, "C-" for Fairly Good, "D" for Fair, "E" for Needs Improvement and "F" for Poor). The grading on the four aspects will be shown on the examination report cards. Therefore, the new system is expected to serve the purposes below:

- To provide teachers with an electronic interface to give assessment on students' conduct before conduct meeting. Summary of students' merit and demerit records will also be provided for their easy reference. Best possible grade on each aspect will be set for individual students automatically with reference to their merit and demerit records;
- To provide an electronic interface to facilitate further discussion and entry of final results on students' conduct during conduct meeting;
- To calculate final conduct grades automatically after conduct meetings.

The operation is fully detailed in Annex I.

(iv) New Leaf Scheme

Through New Leaf Scheme, students are given an opportunity to clear minor offence records. Students who intend to clear an offence record with New Leaf Scheme must register at Student Affairs Office. The record of minor offence will be cleared if, on the following 12 school days after registration, the applicant has no records of offences of the same category. Therefore, the new system is expected to serve the purposes:

- Students' merit and demerit records can be sorted out and displayed in order of date or record type etc. on individual basis for easy reference of staff members.
- Records can be cleared and restored with ease.
- After clearing a record, the other records of the same category of that student will be adjusted automatically according to our warning system.
- Statistical reports of various kinds such as comparison by record types will be provided

More details on the operation are outlined in Annex II.

(c) Report Card System

With our existing computerized Report Card System, settings such as full mark, grade, passing mark, credit and weighting can be pre-set for different subjects in each class level for mark entry, mark processing and printing of report cards. Different subjects may have different weightings for first term and second term. The marks of students of a split class can be entered by their respective subject teachers. Grading of marks can be done with reference to various criteria. Below is a summary of the information to be printed on the report cards of term examinations:

- (i) Grade (an asterisk (\*) is marked next to the grade if it is "E" for those students who fail)
- (ii) Position in class or in form
- (iii) Total number of students taking the subject

- (iv) Paper information (for example: reading, writing, listening, speaking and dictation in Chinese & English Languages)
- (v) Attendance
- (vi) Merit
- (vii) Extra-curricular activities
- (viii) Conduct
- (ix) Promotion Remark (Promoted, Promoted on Trial, Repeat)

Some of the above information may not be printed on the result slips of Uniform Test. There may be slight amendment to individual students' subject marks even after the processing and grading of marks as well as the printing of report cards of all students. As a result, the report cards will be re-printed for these individual students. For more details, please refer to Annex III. The new system is expected to serve all the purposes mentioned.

(d) Management System for Extra-curricular Activities

In our school, extra-curricular activities (ECA) are categorized as below:

Group A: Student Leaders

Group B: Uniform Team

Group C: Service Team

Group D: Club and Society

Group E: Choir and Musical Group

Group F: Sports Team

Each student of F.1 to F.3 has to choose two activities at least and three activities at most (at most one from each of Group A and B, and at most two from each of Group C, D, E and F). Each F.1 student has to choose one activity from either Group B (Uniform Team) or Group C (Service Team). Each student of F.4 & F.6 has to choose one activity at least and three activities at most (at most ONE from each of Group A and B, and at most TWO from each of Group C, D, E and F). F.5 and F.7 students may decide on the number of activities to be engaged in. All members must attend the activities and meetings of their respective ECA. Half black mark will be given to each absence without applying for leave. ECA results are classified into six categories (Excellent, Very Good, Good, Fairly Good, Fair and Unsatisfactory) according to members' performances. The yearly results will be recorded on the report cards. The new system is expected to help with data processing of students' records and performance in ECA, as well as the application for ECA. The application of ECA membership is processed in three stages. If the number of applications exceeds the quota, drawing lot for membership will be required. Besides, selection process for membership is required for some ECA. For further details, please refer to Annex V.

More importantly, the new system with above-mentioned functionalities is expected to operate as an integrated platform so as to streamline the administrative workflows of the school.

#### 4. Implementation Solutions

Our school will set up a task force to be responsible for implementing the smart card and administration system plan. The committee members are listed as follows:

| Name              | Position            | Role              |
|-------------------|---------------------|-------------------|
| Ms Kuby Chan      | Principal           | Consultant        |
| Mr Mok Kwok-wai   | Vice Principal      | Coordinator       |
| Mr Tsang Chi-wing | IT Coordinator      | Technical Advisor |
| Mr Lo Wing-kin    | Computer Penal Head | Member            |
| Mr Luk Kai-ho     | Discipline Master   | Member            |
| Ms Heung Yuk-mui  | ECA Mistress        | Member            |

To ensure the smoothness of the implementation, the task force will review the plan on a regular basis. Below is the draft of the implementation plan:

| Schedule                | Description  |
|-------------------------|--|
| 2008 October – November | <ul style="list-style-type: none"> <li>• Purchase smart card solution and the related software and hardware from vendors</li> <li>• Vendor provides a server and system installation services</li> </ul> |

|                              |  |
|------------------------------|--|
| 2008 November – 2009 January | <ul style="list-style-type: none"> <li>Vendor provide the implementation consultation services to the responsible staff</li> <li>Vendor provide the training of the systems to the responsible staff</li> <li>Testing and Trial-run of the new Report Card System and Merit and Demerit Record Management System</li> <li>Transfer of data from the existing system to the new system</li> </ul> |
| 2009 January – February      | <ul style="list-style-type: none"> <li>Discuss with vendor the design of smart cards</li> <li>Take photos for current students</li> </ul>  |
| 2009 February                | <ul style="list-style-type: none"> <li>Testing and Trial-run of the new ECA Management Systems</li> </ul>  |
| 2009 March – April           | <ul style="list-style-type: none"> <li>Vendor site visit the school and confirm the locations for installing the smart card readers and other components</li> <li>Proceed to installation and construction work for smart card readers and other components</li> <li>Review effectiveness and work on any necessary improvements</li> </ul>  |
| 2009 May – August            | <ul style="list-style-type: none"> <li>Test smart card attendance system</li> </ul>  |
| 2009 June – August           | <ul style="list-style-type: none"> <li>Conduct workshops for teachers to familiarize them with the new systems</li> </ul>  |
| 2009 July – August           | <ul style="list-style-type: none"> <li>Take photos for newly admitted students</li> <li>Provide the digital photos and relevant information of the students to vendor for printing cards</li> <li>Printing of smart cards</li> </ul>   |
| 2009 September               | <ul style="list-style-type: none"> <li>Full launch of the new systems</li> </ul>   |
| 2009 December – 2010 January | <ul style="list-style-type: none"> <li>Conduct survey to collect feedback from teachers</li> <li>Review effectiveness and work on any necessary improvements</li> </ul>  |
| 2010 June – July             | <ul style="list-style-type: none"> <li>Conduct survey to collect feedback from teachers</li> <li>Review effectiveness and work on any necessary improvements</li> </ul>  |

## 5. Budget Plan

| Expenditure on Equipment / Services                                     | Unit Cost | Quantity | Amount (HK\$)      |
|---|-----------|----------|--------------------|
| 1. Student Attendance System  | 20,000    | 1        | 20,000             |
| 2. Customization for Student Attendance System                          | 24,000    | 1        | 24,000             |
| 3. Student Merit and Demerit Record Management System                   | 20,000    | 1        | 20,000             |
| 4. Customization for Student Merit and Demerit Record Management System | 20,000    | 1        | 20,000             |
| 5. Report Card Management System  | 20,000    | 1        | 20,000             |
| 6. Customization for Report Card Management System                      | 9,000     | 1        | 9,000              |
| 7. Student Activity Management System                                   | 20,000    | 1        | 20,000             |
| 8. Smart Card Reader for Attendance Taking                              | 3,000     | 4        | 12,000             |
| 9. Smart Cards  | 35        | 1,400    | 49,000             |
| 10. Cabling and Installation Work                                       | 6,000     | 1        | 6,000              |
| <b>Total :</b>  |           |          | <b>HK\$200,000</b> |

| Contribution Breakdown            |                     |                            |                   |
|-----------------------------------|---------------------|----------------------------|-------------------|
|                                   | School Contribution |                            | QEF Grant Sought  |
|                                   | Amount              | Source                     |                   |
| Facilities / Services Expenditure | HK\$125,000         | School Development Funding | HK\$75,000        |
| <b>Total :</b>                    |                     |                            | <b>HK\$75,000</b> |

## 6. Evaluation

- (a) Performance Targets
- Teacher's workload in system maintenance and development will be reduced by 50%.
  - At least half of teachers consider the integrated platform effective in handling administrative work.
- (b) Quality Assurance

- (i) Interview and collect feedback from staff members who are responsible for the maintenance and development of administrative system at the end of each school term in school year 2009 – 10.
- (ii) In school year 2009 – 10, conduct a survey at the end of each school term to find out whether the performance targets have been achieved or not, and review effectiveness and work on any necessary improvements, if any.