# Contents

1. OVERVIEW .................................................................................................................. 1
2. PROJECT PROPOSAL ................................................................................................... 1
3. SELECTION OF STUDENTS ......................................................................................... 2
4. ROLES AND RESPONSIBILITIES FOR MENTOR(S) AND CO-MENTOR(S) .............. 2
5. ATTACHMENT PERIOD ............................................................................................... 4
6. STUDENTS’ ALLOWANCE ........................................................................................... 5
7. CLAIM FOR CONSUMABLE EXPENSES .................................................................... 5
8. LITERATURE REVIEW ............................................................................................... 6
9. RESEARCH LOGBOOK ............................................................................................... 6
10. GUIDELINES FOR PROJECT REPORT AND POSTER .............................................. 7
11. PROJECT NOMINATION FOR YDSP CONGRESS .................................................... 8
12. RESEARCH@YDSP ACTIVITIES ................................................................................. 8
13. STUDENT’S PERFORMANCE ASSESSMENT (CERTIFICATE OF PARTICIPATION) ..... 9
14. MENTOR’S AND/OR CO-MENTOR’S FEEDBACK ................................................... 9
15. YDSP OFFICE ........................................................................................................... 10

ANNEX A .......................................................................................................................... A - 1
ANNEX B .......................................................................................................................... B - 1
ANNEX C .......................................................................................................................... C - 1
ANNEX D .......................................................................................................................... D - 1
ANNEX E .......................................................................................................................... E - 1
ANNEX F .......................................................................................................................... F - 1
ANNEX G .......................................................................................................................... G - 1
ANNEX H .......................................................................................................................... H - 1
ANNEX I .......................................................................................................................... I - 1
1. **OVERVIEW**

The Young Defence Scientists Programme (YDSP) started in 1992 and was enhanced in 2005 with revamped and new programmes. YDSP is an initiative co-managed by the Defence Science and Technology Agency (DSTA) and DSO National Laboratories (DSO), to promote greater interest in defence science and technology among students in both secondary schools and junior colleges. YDSP has been a highly valued channel for students to discover more about the world of defence by taking part in a wide variety of programmes designed to stretch their young minds to the fullest potential.

Research@YDSP is a four-month research programme, with full time attachment from late October to December, organised by DSTA and DSO with the strong support of partners from Centre for Strategic Infocomm Technologies (CSIT), Temasek Laboratories (TLs), Nanyang Technological University (NTU), National University of Singapore (NUS) and their research institutes. Research@YDSP offers students the opportunity to gain research experience in a real laboratory environment. Students will be working in laboratories under the mentorship of experienced research scientist, engineers and other practising professionals. The students will be engaged in projects which have been specially designed to spur and further their interest in science and technology.

With the support of our research scientists and engineers and other practising professionals in the programme, YDSP presents an exciting and wonderful educational opportunity and experience for the students.

Please refer to **ANNEX A** for the Research@YDSP schedule and checklist for the Mentor(s) and Co-Mentor(s).

2. **PROJECT PROPOSAL**

Research@YDSP is an opportunity for Mentor(s) to tap on the talented students to assist in various research work/projects that you may have in hand. It is also an opportunity to showcase (to the extent possible) to the students the work that is actually on-going in the respective areas so as excite and attract them.

We would like to recommend that Mentor(s) should consider the following guidelines when preparing and designing the project proposal:

1. The projects should relate the importance of technology to science and/or engineering. It should also be unclassified especially those proposed by the research staff in DSTA, DSO and CSIT;
2. The write up should be simple and easy understandable by the students. Pre-requisites, if any, should also be highlighted clearly;
3. The projects should have clear and specific deliverables, and if possible indicate the milestones for the respective deliverables;
4. The projects should involve hands-on experience as much as possible as students learn most effectively through experiential learning;
5. The project and experience gained must be meaningful and beneficial to the students.

YDSP Office will publicise the full details provided by the Mentors to the schools so that interested students can select the projects based on their understanding of the project requirements and their own capabilities in meeting the expectations.

Please refer to ANNEX B for the Project Proposal Template.

3. SELECTION OF STUDENTS

YDSP Office will request the schools to make a first cut assessment of each applicant to ensure they are of good character and have the potential to be considered for the proposed research. The students should also possess excellent academic and CCA track records.

We will request schools to give priority to Singapore Citizens or Singapore PRs. However if the project requires citizen restrictions to Singapore Citizens and Singapore PRs only, we will communicate this requirement to the schools. Thus please indicate clearly in the project proposal template the citizen restrictions, if any.

YDSP Office encourages Mentor(s) to meet up with the applicants to select the best for their project through a face-to-face interview. This way the Mentor will be able to assess the students’ capabilities and commitment level directly. If Mentors decide that a face to face interview is not necessary, Mentors may choose to conduct the interview via email and telephone. Mentors are required to inform YDSP Office of the selection results for the latter to follow up accordingly.

4. ROLES AND RESPONSIBILITIES FOR MENTOR(S) AND CO-MENTOR(S)

4.1. It is important that the student(s) is adequately supervised and guided throughout the research attachment period.

4.2. If the Mentor(s) are needed to be away during the Research@YDSP period, we need the respective Mentor(s) to make arrangement for another colleague to continue mentoring the student(s) during his/her absence. We would also be requesting the student(s) to inform the Mentor(s) in advance if they need to take time-off from the attachment.
4.3. The student(s) is encouraged to keep a Research Logbook to report the progress of his/her projects and also detail his/her learning experiences throughout their attachment. The Mentor(s) may like to advise their mentee(s) on how to maintain a proper Research Logbook.

4.4. Mentor(s), Co-Mentor(s) and Student(s) are encouraged to discuss and plan the Project Schedule for the attachment period. The planning of the schedule is important as student(s) are required to obtain at least 75% of the attendance rate or commit at least 75% of their efforts in the project in accordance to the planned schedule. Please refer to the ANNEX C for the sample of the Project Schedule. Please submit the project schedule to YDSP Office by 30 September 2013.

4.5. Mentor’s roles and responsibilities are:

a. Define the attachment assignment;
b. Tailor the work plan to fit the project;
c. Ensure that the student(s) is comfortably settle in;
d. Review the progress of the student(s) each week, to compare actual progress against planned progress and suggest corrective action if necessary;
e. Manage the student(s) and provide feedback on his/her performance throughout the internship period;
f. Be available to the student(s) for any questions and directions. If the Mentor(s) is unavailable, a covering Mentor(s) should be appointed;
g. Participate in grading the student(s)' performance.

4.6. Co-Mentor’s roles and responsibilities are:

a. To co-supervise the Student(s), where needed/possible, to support the Mentor(s) in providing meaningful experience for the student(s) and to serve as the DSTA/DSO linkage with the Student(s) providing the bigger picture of YDSP to ensure that the student(s) understand the relevance and importance of science and technology to defence capabilities.
b. To initiate discussion with Mentor(s) on the possibilities of incorporating defence related elements into the project.
c. To maintain regular contact with the student(s) to ensure that the students’ progress is according to the planned project schedule, e.g. weekly conversation or emails.
4.7. The following are the desired values and attributes we would like to request from the Mentor(s) and Co-Mentor(s):

<table>
<thead>
<tr>
<th>Values and Attributes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionalism</td>
<td>Provide and act as coach to the students</td>
</tr>
<tr>
<td></td>
<td>Share skills, knowledge, and expertise</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Make contact with the students in a timely manner</td>
</tr>
<tr>
<td></td>
<td>Be available to answer any questions during the attachment</td>
</tr>
<tr>
<td>Commitment</td>
<td>To be available and committed in guiding and mentoring the students</td>
</tr>
<tr>
<td>Respect</td>
<td>To build trust and mutual respect</td>
</tr>
<tr>
<td></td>
<td>Shows professional respect for the students and team</td>
</tr>
<tr>
<td>Encouragement</td>
<td>Encourage students to be independent</td>
</tr>
<tr>
<td></td>
<td>Help to build their confidence</td>
</tr>
<tr>
<td></td>
<td>Encourage and guide students through challenging situations</td>
</tr>
</tbody>
</table>

5. ATTACHMENT PERIOD

5.1. ATTACHMENT CYCLE

The attachment programme will commence from August / September on a part-time basis to allow the students concentrate on their schoolwork during the school term. Upon the end of the school term typically in late October to early November, the students will commit to the attachment fulltime till the end of December.

5.2. WORKING HOURS

The working hours are as follows:

<table>
<thead>
<tr>
<th>LABORATORIES</th>
<th>WORKING HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Nanyang Technological University (NTU)</td>
<td>Mon – Thur : 0830hrs to 1745hrs</td>
</tr>
<tr>
<td>• Temasek Laboratories @ NTU</td>
<td>Fri : 0830hrs to 1715hrs</td>
</tr>
<tr>
<td>• Singapore University of Technology and Design (SUTD)</td>
<td>Mon – Thur : 0800hrs to 1730hrs</td>
</tr>
<tr>
<td>• Temasek Laboratories @ SUTD</td>
<td>Fri : 0800hrs to 1700hrs</td>
</tr>
<tr>
<td>Centre for Remote Imaging, Sensing and Processing (CRISP) @ NUS</td>
<td></td>
</tr>
<tr>
<td>Centre for Strategic Infocomm Technologies (CSIT)</td>
<td></td>
</tr>
<tr>
<td>Defence Science and Technology Agency (DSTA)</td>
<td></td>
</tr>
<tr>
<td>DSO National Laboratories (DSO)</td>
<td></td>
</tr>
<tr>
<td>National University of Singapore (NUS)</td>
<td></td>
</tr>
<tr>
<td>Temasek Laboratories @ NUS</td>
<td></td>
</tr>
</tbody>
</table>

| Mon – Thu: 0830hrs to 1800hrs |
| Fri: 0830hrs to 1730hrs |

Different laboratories may have a differing practice. The respective Mentor(s) will advise the student(s) to adopt the working hours of their department.

5.3. **LEAVE**

**Time Off.** Student(s) is to inform the mentor in advance if they wish to take time-off from their attachment.

6. **STUDENTS’ ALLOWANCE**

6.1. A one-time allowance of SGD$300.00 will be given to the student(s) for the project-related expenses. The student(s) will receive their allowance in late October 2013.

7. **CLAIM FOR CONSUMABLE EXPENSES**

7.1. Each project is allocated up to SGD$400.00 which Mentor(s) may claim for project related consumable expenses, subjected to the following criteria:

   a. The projects are not funded by any member of the Defence Technology Community (DTC).

   b. Only consumables that are required specifically for the project are claimable.

   c. Examples of claimable items include, but not limited to special supplies and materials, laboratory consumables which are necessary for the successful execution of the project (e.g. electronic components and parts, batteries, USB drive, hard disk

---

1 Defence Technology Community (DTC) comprises Defence Science and Technology Agency (DSTA), DSO National Laboratories (DSO), Centre for Strategic Infocomm Technologies (CSIT), Air Logistics Organisation (ALO), Naval Logistics Organisation (NLO) and Headquarters, Maintenance and Engineering Support (Army) (HQ MES)
etc). Examples of non-claimable items are general consumables such as stationary, catering of food and transport claims.

**Note:** If you have any enquiries on the type of consumables that are claimable or if you wish to seek exceptions, kindly contact YDSP Office for clarifications before you purchases the items.

7.2. To claim expenses for the consumables, please send the official claim form, attached with the original receipt to the YDSP Office **latest by 31 January 2015**. Please refer to the official claim form in **ANNEX D**.

7.3. Please ensure that you have purchased all the necessary items before making the claims as this will only be a **one-time submission per project**.

8. **LITERATURE REVIEW**

8.1. Upon confirmation of the project, Mentor(s) are encouraged to provide relevant reading materials for the student(s). For example journals, magazines and internet articles etc. This is necessary because literature review will allow the student(s) to gather information and ideas that will be relevant to the project. In addition, it sets the direction for the student(s) before embarking on the research project.

The following website provides more information on literature review:

- The Literature Review (Deakin University Library):
  

9. **RESEARCH LOGBOOK**

9.1. The student(s) are required to keep a Research Logbook to track the progress of their project and detailed their learning experience throughout the attachment. The following are some guidelines on the information the student(s) can include in the Logbook:

- Research data, work done and results;
- Questions or ideas;
- Accomplishments and learning experiences, etc.
10. GUIDELINES FOR PROJECT REPORT AND POSTER

10.1. The student(s) are required to submit Project Report and Poster to the Mentor(s) and Co-Mentor(s) at the end of their attachment for endorsement. Mentor(s) is required to endorse the Project Report and Poster before the final submission to YDSP Office.

10.2. Please take note of the following submission deadline for the Project Report and Poster:

<table>
<thead>
<tr>
<th>Items</th>
<th>Student Submission to Mentor(s) and Co-Mentor(s)</th>
<th>Mentor Submission to YDSP Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report</td>
<td>9 January 2015</td>
<td>16 January 2015</td>
</tr>
<tr>
<td>Poster</td>
<td>9 January 2015</td>
<td>16 January 2015</td>
</tr>
</tbody>
</table>

10.3. The submitted Project Report will be compiled into an YDSP Congress Proceedings compact disc which will be given out to the guests at the YDSP Congress. In addition, each Research@YDSP team will be allocated a booth to display their Project Poster so to share their achievements with the guest during the event.

10.4. The following are guidelines to the type of information to be published in the Project Report and Poster:

- The final delivery of the Project Report and Poster must be “Unclassified”;
- Project code names are not allowed to be mentioned in the Project Report and Poster;
- Information drawing reference to the SAF/MINDEF must not to be included in Project Report and Poster unless it can be found in the official open sources such as Cyber Pioneer;
- Do ensure that referencing for image/table/figure is indicated in the Project Report and Poster;
- For projects related to SAF/MINDEF, please inform and seek clearance with the respective Operation Manager at the same time.

Please refer to the ANNEX E for the guidelines for Submission of the Project Report and Poster.
11. PROJECT NOMINATION FOR YDSP CONGRESS

We select 2-3 projects for presentation at the YDSP Congress. Such projects draw attention of the invited guests and students as well as received good publicity.

Mentor(s) are encouraged to submit their supervised projects for consideration. The nomination criteria are mentioned in the sub-paragraph below.

The nominated projects would be required to be presented by the student(s) before a selection panel appointed by the YDSP Office. The selected project will be presented by one of its team members at the Congress.

11.1. Nomination Criteria

Please refer to the below for the Judging Criteria used during the shortlisting session. You may use this as your reference in nominating the students:

a. Achievement of Project Goals (40%)
b. Thoroughness in Purpose and Scope of Project (25%)
c. Technical Skills in Project Work (20%)
d. Clarity in Presentation (15%)

Please refer to ANNEX F for the Judging criteria and its details.

If you would like to nominate your project(s) and student(s), please provide the YDSP Office with the following information:

a. Name of student(s)
b. Project title
c. Reason for nomination

We request that the mentor to submit the nomination latest by 9 January 2015.

12. RESEARCH@YDSP ACTIVITIES

12.1. As part of the attachment period, there will be the following events/activities involved the students and/or the Mentors/Co-Mentors:

a. Visits by YDSP Office

YDSP Office (and Teachers Advisors) will have 2-3 visits to the students at the respective premises to keep updated on the progress of their projects and well-being. We seek your patience in accommodating these visits and answering enquiries from the YDSP Office and Teacher Advisors. A
photography and camera crew may also come along to capture the students’ experiences.

b. YDSP Congress

YDSP Congress is the culminating event for the YDSP activities for the year. It will also be the event to show our appreciation to participating schools, mentors, co-mentors, YDSP Partners and students for supporting the various YDSP activities. The programme will include presentation of YDSP Scholarships & Awards, project presentations from the selected participants of YDSP activities and Research@YDSP projects exhibitions (posters and prototypes). Details of the event will be provided later.

13. STUDENT’S PERFORMANCE ASSESSMENT (CERTIFICATE OF PARTICIPATION)

13.1. Mentor(s) and Co-Mentor(s) should set up clear project schedule and timeline with the students before the attachment period. The student(s) are required to achieve at least 75% attendance rate or commit at least 75% of effort in their project according to the planned schedule as agreed with the Mentor(s) and Co-Mentor(s) (if assigned) to be eligible in receiving the Certificate of Participation. The Mentor(s) will assess their student(s) at the end of the attachment.

13.2. At the end of the attachment, Mentor is required to assess his/her student’s performance that is based on his/her contribution to the project and other attributes such as working attitude and interpersonal skills. Please complete the Student(s)’ Performance Form via the online form (http://bit.ly/YDSPStudentAssessment) for each student. Please refer to the ANNEX G for the sample of the student(s)’ performance assessment form.

13.3. We request that the mentor to complete the form within 3 weeks upon the end of the attachment period, latest by 20 January 2014.

14. MENTOR’S AND/OR CO-MENTOR’S FEEDBACK

14.1. YDSP Office takes an active role in reviewing the activities to ensure its usefulness and relevance to our Partners and Students. We greatly appreciate your candid feedback and look forward to your suggestions on how we can improve the various YDSP activities. Please complete the Mentor’s Feedback Form (http://bit.ly/YDSPmentorfeedback) and the
Co-Mentor’s Feedback Form (http://bit.ly/YDSPcomentorfeedback) online. Please refer to the ANNEX H and ANNEX I for the sample of the Mentor’s Feedback Form and Co-Mentor’s Feedback Form respectively.

14.2. We request that the Mentor(s) and Co-Mentor(s) to complete the form within 3 weeks upon the end of the attachment period, latest by 20 January 2014.

15. **YDSP OFFICE**

15.1. We will be happy to assist you if you have any queries or encounter any problems during the attachment period. You may reach us at:

**Thng Siew Teng / Cheryl Tang**  
Defence Science and Technology Agency  
71 Science Park Drive  
Singapore 118253  
Tel: 6879 5225 / 6879 5118  
Fax: 6872 1315  
Email: ydsp@dsta.gov.sg

**Agnes Chia**  
DSO National Laboratories  
20 Science Park Drive  
Singapore 118230  
Tel: 6796 8272  
Fax: 6774 6130  
Email: clihwa@dso.gov.sg
# RESEARCH@YDSP SCHEDULE AND CHECKLIST

<table>
<thead>
<tr>
<th>S/N</th>
<th>Date</th>
<th>Activity/Task</th>
<th>Action By</th>
<th>Check List</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9 Sept 14</td>
<td>Research@YDSP Welcome</td>
<td>YDSP Office, Students, Mentors, Co-Mentors, Teacher, Partners POC and Senior Management from DSTA, DSO, CSIT and Partners’ Organizations</td>
<td>☐</td>
</tr>
<tr>
<td>2</td>
<td>Oct 14</td>
<td>Visit Professors in all Research Institutions</td>
<td>YDSP Office and Mentor(s)/Co-mentor(s)</td>
<td>☐</td>
</tr>
<tr>
<td>3</td>
<td>Oct 13</td>
<td>Submission of Planned Project Schedule</td>
<td>Mentor(s), Co-Mentor(s) and Student(s)</td>
<td>☐</td>
</tr>
<tr>
<td>4</td>
<td>17 Nov – 31 Dec 15</td>
<td>Full time commitment on the project based on planned project schedule as agreed by Mentor(s), Co-Mentor(s) and Student(s)</td>
<td>Mentor(s), Co-Mentor(s) and Student(s)</td>
<td>☐</td>
</tr>
<tr>
<td>5</td>
<td>2, 3 &amp; 4 Dec 14 (TBC)</td>
<td>YDSP Office to visit all students and lunch reception</td>
<td>YDSP Office, Camera Crew, Mentor(s), Co-Mentors, Teacher-in-Charge</td>
<td>☐</td>
</tr>
<tr>
<td>6</td>
<td>9 Jan 15</td>
<td>Student(s) will submit the Project Report to the Mentor(s) and Co-Mentor(s). Mentor(s) and Co-Mentor(s) to do a check and endorse the student(s)’ report.</td>
<td>Student(s)</td>
<td>☐</td>
</tr>
<tr>
<td>7</td>
<td>9 Jan 15</td>
<td>Student(s) will submit the Project Poster to the Mentor(s) and Co-Mentor(s). Mentor(s) and Co-Mentor(s) to do a check and endorse the student(s)’ report.</td>
<td>Student(s)</td>
<td>☐</td>
</tr>
<tr>
<td>8</td>
<td>16 Jan 15</td>
<td>Mentor(s) will submit the finalised copy of the students’ report to YDSP Office (Report must also be endorsed by Co-mentor, if assigned)</td>
<td>Mentor(s) and / or Co-Mentor(s)</td>
<td>☐</td>
</tr>
<tr>
<td>S/N</td>
<td>Date</td>
<td>Activity/Task</td>
<td>Action By</td>
<td>Check List</td>
</tr>
<tr>
<td>-----</td>
<td>----------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>9</td>
<td>16 Jan 15</td>
<td>Mentor(s) will submit the finalised copy of the students’ poster to YDSP Office (Report must also be endorsed by Co-mentor, if assigned). Submission of Report to DSTA Outreach (Thng Siew Teng) / DSO Outreach (Agnes Chia) / CSIT HR (Doreen Foo) for security clearance (endorsed by Mentor &amp; Division Director)</td>
<td>Mentor(s) and / or Co-Mentor(s)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>16 Jan 15</td>
<td>Submission of Project Nomination for YDSP Congress</td>
<td>Mentor(s) and / or Co-Mentor(s)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>20 Jan 15</td>
<td>Submission of the following forms to YDSP office.</td>
<td>Mentor(s) and / or Co-Mentor(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Claim forms to YDSP office</td>
<td>Mentor(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nomination of project team to present at YDSP Congress.</td>
<td>YDSP Office and Judge(s)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>27-29 Jan 15</td>
<td>Shortlisting Selection of 2 project teams to present at YDSP Congress.</td>
<td>YDSP Office and Judge(s)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Feb/Mar 15</td>
<td>The selected project teams to present at YDSP Congress will need to attend 4 rehearsals before the YDSP Congress.</td>
<td>YDSP Office and Student(s)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>25 Mar 15</td>
<td>YDSP Congress 2014</td>
<td>YDSP Office, Student(s), Mentor(s), Co-Mentor(s), Teacher(s), Partners POC and Senior Management from DSTA, DSO and CSIT</td>
<td></td>
</tr>
</tbody>
</table>
ANNEX B

PROJECT DETAILS FORM

Mentor’s Information

Mentor / Co-mentor: ____________________________
Organization / Department: ____________________________
Contact No / Mobile No: ____________________________
Email: ____________________________
Place of Attachment and Address: ____________________________

Projects Details

<table>
<thead>
<tr>
<th>Items</th>
<th>Description / Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Objective(s)</td>
<td></td>
</tr>
<tr>
<td>Work / Project Scope</td>
<td></td>
</tr>
<tr>
<td>Deliverables</td>
<td></td>
</tr>
<tr>
<td>Skill / Knowledge Required</td>
<td></td>
</tr>
<tr>
<td>Type of Information the intern will have access</td>
<td></td>
</tr>
<tr>
<td>Planned Project Schedule</td>
<td></td>
</tr>
</tbody>
</table>

Is this Project done in collaboration with the DTC?  
☐ Yes  
☐ No  
☐ N.A. (For projects submitted by DSTA, DSO and CSIT)

Citizenship Requirements

☐ Singaporean only  
☐ Singaporean and Singapore PR only  
☐ No citizenship restrictions

Project Classification

☐ Unclassified  
☐ Restricted  
☐ Confidential

Project Involvement

☐ Yes  
☐ No
<table>
<thead>
<tr>
<th>(Is it related to SAF / MINDEF or external party)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Security Clearance Required</strong></td>
</tr>
<tr>
<td><strong>Co-Mentor Required</strong></td>
</tr>
<tr>
<td><strong>Level of Student(s) Preferred</strong></td>
</tr>
<tr>
<td><strong>No of Students Required for the Projects</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

1 Defence Technology Community (DTC) comprises Defence Science and Technology Agency (DSTA), DSO National Laboratories (DSO), Centre for Strategic Infocomm Technologies (CSIT), Air Logistics Organisation (ALO), Naval Logistics Organisation (NLO) and Headquarters, Maintenance and Engineering Support (Army) (HQ MES).

2 If the project is related to the SAF/MINDEF or external party, it would be prudent to consult Operation Manager, if the mentor or the supervisor deems it necessary. Please send us a copy of the Operation Manager’s clearance.
PROJECT SCHEDULE

Mentor(s), Co-Mentor(s) and Student(s) are encouraged to discuss and plan the Project Schedule for the attachment period. The planning of the schedule is important as student(s) are required to obtain at least 75% of the attendance rate or commit at least 75% of their efforts in the project in accordance to the planned schedule.

Name of Mentor: _______________________________________________

Name of Co-Mentor(s): __________________________________________

Project Title: _________________________________________________

<table>
<thead>
<tr>
<th>Period</th>
<th>Activities</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CLAIM FORM - REIMBURSEMENT FOR RESEARCH@YDSP PROJECT PURCHASE

TO: YDSP Office
Defence Science and Technology Agency
Human Resource
71 Science Park Drive
Singapore 118253
Attn: Cheryl Tang

Part I: Details of Claim (To be completed by Mentor)

1. Title of project: ________________________________________________________________
2. Name of Mentor & NRIC__________________________________________________________
3. Bank name, branch/code, account number: _______________________________________
4. Mailing Address: _______________________________________________________________
5. Item(s) Purchased: (Please paste or staple the original receipt(s) at the back of the form)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Description</th>
<th>Receipt No</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL:

6. Amount Claimed: ___________________ (Dollars: _________________________________)

7. I confirm that payment for the above invoice(s) had been paid fully.

__________________________________________
Claimant's Signature & Date

Part II: Verification and Approval of Expenditure (To be completed by YDSP Office)

Checked By: ___________________ Approved By: ___________________

__________________________________________  __________________________

D - 1
GUIDELINES FOR SUBMISSION OF PROJECT REPORT AND POSTER

PROJECT REPORT

1. Student must submit the endorsed project report to the mentor at the end of their attachment. Late submissions will risk not being published in the YDSP Congress Proceedings.

2. Each project report should not exceed 10 pages, inclusive of tables and figures, excluding annexes and references. It should be laser printed on A4-sized paper with single line spacing and 1 inch margins throughout. Papers that do not conform to this standard will not be accepted.

3. The report must be in the following format:
   
a. Title

   - This should be brief (not exceeding two lines) and precise. It should be typed in bold capital letters. Font type: Times New Roman. Font size: 14 points.

b. Name(s) of Author(s)

   Family name should be underlined. Mentor’s name should be mentioned last (without titles). Font type: Times New Roman. Font size: 10 points.

   - Name of School/Organization/Institutions/Designation should be spelled out in full. E.g. River Valley High School instead of RVHS or DSO National Laboratories, Nanyang Technological University etc. or Associate Professor, Professor (NOT AP, Prof.)

   - To have upper case for initials in name. E.g. zhang li ying is to be spelt as Zhang Li Ying.

   - Indicate the school you are in when you commence the project and NOT the school you are in when you submit the poster. E.g. Indicate Raffles Girls’ School (Secondary) and not Raffles Institution (Junior College) when you move up the next level.

c. Affiliation(s) of Author(s)

   - To be spelt out in full. Font type: Times New Roman. Font size: 10 points.

d. Text
- The rest of the text should be in **Times New Roman, Font size 12 points**.

e. **Abstract**

- This should be a brief and informative summary of the main findings of the paper. It should not exceed 200 words.

**Example:**

```
ESTABLISHING A BUSINESS CASE FOR GREEN BUILDINGS IN SINGAPORE

Lee Peng, Wei, Tung Shu, Hui, Robert Tjiong, Loe, Kong

National University of Singapore, 10 Biashan Street, Singapore 574013

Abstract

..........................................................................................................................
..........................................................................................................................
```

f. **Math formula/equations**

- To be typed out using Equation Editor in Microsoft Word.

g. **Introduction**

- This should be clear and include the purpose of the work.

h. **Materials and Methods**

- Experimental details should be concise but sufficient to allow a qualified operator to repeat the work. Refer to previously published procedures employed by citing the paper. Do not include extensive details unless they present substantially new modifications.

i. **Results**

- This may be presented in text, tables, figures or photographs. Figures, photographs and tables should be placed in the appropriate place where they are first cited in the text and they must have clear headings (Table 1, Table 2, Figure 1, Figure 2 etc). Only originals must be submitted and unless they are biological drawings, they should not be hand drawn. Students are advised to use computer software programmes for plotting graphs.

**Example:**
Table X: Summary of Building

<table>
<thead>
<tr>
<th>LCC Items</th>
<th>Total Cost</th>
<th>Cost normalized by GFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Life Cycle Costs PV</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Initial Costs PV</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

j. **Discussion**

- This should be concise and deal with interpretation of results.

k. **Acknowledgements**

- Remember to acknowledge all those who have helped you in this project.

l. **References**

- Reference citation should be numbered sequentially as they appear in the text ([1], [2] etc), followed by those in tables and finally by those in figure legends. Only published papers are numbered and included in the Reference section. All other forms of reference, including unreferred abstracts, should be cited in the text as personal communications, manuscript submitted or in preparation.

- The Reference list should contain only author(s)’s name(s), year, title of paper, journal title and the first and last page numbers. Reference to books should include editor(s)’s name(s), publisher and place.

**Example:**

**References**


PROJECT POSTER

4. Students are required to submit the project poster to the mentor. The poster will be displayed during the YDSP Congress, which will be held on 27 March 2013.

5. The poster should be at the following format:

   a. **Size**
      - A1 (841mm x 1189mm), **Orientation** – Portrait

   b. **Design**
      - Poster must be designed using the powerpoint template provided by YDSP Office. A softcopy will be sent to you in Mid-December

   c. **Photos/graphical files embedded within poster**
      - Ensure resolution is **at least 300dpi** so it will be readable at A1 size
      - **Send all image/ graphical files separately** (in .jpeg format)

   d. **File format** (· psd, or · ppt (preferably))
      - Poster submitted must be in .psd or .ppt format

   e. **Project Title**
      - To be entirely spelled out in upper case

   f. **Text**
      - Keep Text to a minimum; be clear and concise. The poster should not be cluttered with text. Focus on objective(s), research/work done and findings/conclusion.

   g. **Naming convention**
      - Name of School/Organization/Institutions/Designation should be spelled out in full.
      - E.g. River Valley High School instead of RVHS
      - E.g. DSO National Laboratories, Nanyang Technological University etc.
E.g. Associate Professor, Professor (NOT AP, Prof.)

- To have upper case for initials in name. E.g. zhang li ying is to be spelt as Zhang Li Ying.

- Indicate the school you are in when you commence the project and NOT the school you are in when you submit the poster.

**h. Acknowledgement**

- Include the name and school of all members in the group

- Include the name and institution/organization of all Mentors and Co-Mentors of the project

**i. References**

- Reference citation should be numbered sequentially as they appear in the text ([1], [2] etc), followed by those in tables and finally by those in figure legends. Only published papers are numbered and included in the Reference section. All other forms of reference, including unreferred abstracts, should be cited in the text as personal communications, manuscript submitted or in preparation.

- The Reference list should contain only author(s)’s name(s), year, title of paper, journal title and the first and last page numbers. Reference to books should include editor(s)’s name(s), publisher and place.

**j. Useful Information**

- Avoid using dark colored background with colored word as the reduced contrast makes reading more difficult.

- Do a spell check and grammar check *(English (United Kingdom))* prior to submission.
Example:

Group Members:
- Goo Seok Lee, Raffles Institution
- Xi Xing Jie, Raffles Institution
- Tan Chun Yin, Raffles Institution

Mentors:
- Dr. Kenneth Kwok, Temasek Laboratories@National University of Singapore
- Bruce Rehnsen, Temasek Laboratories@National University of Singapore

Co-Mentors:
- Ang Cher Wee, DSO National Laboratories
### PROJECT NOMINATION FOR YDSP CONGRESS – JUDGING CRITERIA

<table>
<thead>
<tr>
<th>S/N</th>
<th>Criteria</th>
<th>Percentage</th>
<th>Guidelines</th>
</tr>
</thead>
</table>
| 1   | Achievement of Project Goals                 | 40%        | 1. Does the project have a clear objective?  
2. Is the objective relevant to the potential user's needs?  
3. Solution(s):  
   i. Is the solution workable, acceptable to the potential user or economically feasible?  
   ii. Could the solution be utilized successfully in the design or construction of an end product?  
   iii. Is the solution a significant improvement over previous alternatives?  
   iv. Has the solution been tested for performance under the conditions of use? |
| 2   | Thoroughness in purpose and scope of project | 25%        | 1. Was the purpose carried out to completion within the scope of the original intent?  
2. How completely was the problem covered?  
3. Are the conclusions based only on a single experiment?  
   Are the results repeatable?  
4. How complete are the project notes?  
5. Is the student aware of other approaches or theories?  
6. Is the student familiar with scientific literature in the studied field? |
| 3   | Technical Skills in Project Work             | 20%        | 1. Does the student have the required laboratory/workshop, computation, observational and/or design skills to obtain supporting data?  
2. Where was the project performed?  
3. To what degree did the student receive assistance from the mentor?  
4. Did the student work together individually or in a team?  
   What was his role in the team? |
<table>
<thead>
<tr>
<th>S/N</th>
<th>Criteria</th>
<th>Percentage</th>
<th>Guidelines</th>
</tr>
</thead>
</table>
| 4   | Clarify in Presentation  | 15%        | 1. How clearly does the student discuss his/her project and explain the purpose, procedure and conclusions? Watch out for memorized speeches that reflect little understanding of principles.  
2. Do the written material / slides reflect the student's understanding of the research?  
3. Are the important phases of the project presented in an orderly manner?  
4. How clearly are the data presented?  
5. How clearly are the results presented?  
6. How well do the presentation slides/ display explain the project? |
Dear Mentor,

Thank you for support in the Research@YDSP. As the Research@YDSP for your student(s) has come to an end, we would like you to do a performance assessment for him / her. Your performance assessment is important to us.

Please take a few minutes to complete this form. (Please use one form for each student)

Please tick the box that best reflects your opinion.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Skills and Knowledge
   Generally, the student
   - Acquired a good understanding of the project
   - Acquired the skills and knowledge of the project through the internship

2. Quality of Work Performance
   Generally, the student
   - Carried out the project well and demonstrated excellence in his work.
   - Was resourceful and able to work without much supervision
   - Was able to fulfil responsibilities efficiently and able to work well under stress

3. Attitude
   Generally, the student
   - Demonstrated initiative
   - Was co-operative and followed instructions of Mentor
   - Showed keen interest in project and was willing to learn

4. Interpersonal and Communication Skills
   Generally, the student
   - Got along well with the fellow teams members and colleagues
   - Showed good Interpersonal Skills in the course of the project
   - Was able to communicate ideas clearly

Please turn over
5. Overall, the quality of the student

6. The student has achieved at least 75% attendance rate or committed at least 75% efforts in their project during the attachment.

7. If your answer to Qn. 6 is No, please share your reasons with us.

About Yourself

Name: __________________________________________________________

Organization / Division: __________________________________________

Contact No: ____________________________________________________

Email: __________________________________________________________

Name of Student Assigned: _________________________________________

School of the Student: ____________________________________________
Dear Mentor,

Thank you for support in the Research@YDSP. Your feedback will be a valuable in helping us to improve future Research@YDSP. Please take a few minutes to complete this form.

Please tick the box that best reflects your opinion of the programme.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I find the matching of the student(s) to the project effective</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. I find the students to be sufficiently equipped to perform the project.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. I find the duration of Research@YDSP sufficient for the student(s) to complete the project.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. I find the support provided by YDSP Office for the duration of Research@YDSP adequate.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. I find the “Schedule of Project Work” a useful tool to ensure that there are sufficient interaction opportunities with the students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Overall, I find Research@YDSP well managed and coordinated.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. What are some of the challenges that you face as a Mentor participating in Research@YDSP?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Please share with us your feedback of the student attached to you.

9. Please share with us your suggestion(s) on how we can improve Research@YDSP or other YDSP activities.

Name: ___________________________________________________

Organization / Division: _______________________________________

Project Title: _______________________________________________
RESEARCH@YDSP – CO-MENTOR FEEDBACK FORM

Dear Co-Mentor,

Thank you for support in the Research@YDSP. Your feedback will be a valuable in helping us to improve future Research@YDSP. Please take a few minutes to complete this form.

Please tick the box that best reflects your opinion of the programme.  

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I find the Co-Mentor Scheme provides sufficient opportunities for me to interact with the students and share my knowledge and experiences.

2. I find that the Co-Mentor has a meaningful role in Research@YDSP.

3. I find the support provided by the YDSP Office for the duration of Research@YDSP adequate.

4. I find the “Schedule of Project Work” a useful tool to ensure that there are sufficient interaction opportunities with the students.

5. Overall, I find Research@YDSP well managed and coordinated.

6. What are some of the challenges that you face as a Co-Mentor participating in Research@YDSP?

__________________________________________________________________________________

7. Please share with us your suggestion(s) on how we can improve the Co-Mentor Scheme to make it a more beneficial experience for future Co-Mentors

__________________________________________________________________________________

8. Please share with us your feedback of the student attached to you.

__________________________________________________________________________________

9. Please share with us your suggestion(s) on how we can improve Research@YDSP or other YDSP activities.

__________________________________________________________________________________

Name : ____________________________________________

Organization / Division : ____________________________

Project Title : _____________________________________

K - 1