

## Internship Evaluation & Reporting

Thank you for taking the time to complete this form, this evaluation will be used to assess the student's participation in the internship program.

Supervisors, using the form below please evaluate the student who interned with your organization, institution, or business. You can fill out this form electronically or you can fill it manually but eventually it must be signed and stamped from the company's side.

Please note that part I & III should be completed by the intern, part II should be completed by the direct supervisor in the company.

### Part I. GENERAL INFORMATION - STUDENT'S INPUT

#### Student Info:

Student Name: Ahmed Abdou Hussien GUC Student ID No.: 43-15781

Faculty: Engineering MET Major: MET

Student Mobile No.: +201064126084

#### Internship Info:

Company Name: ESNA hydro Power plant Generation

Core Industry/Business: Core Industry Country: Egypt

Supervisor Name: Abdou Hussein Ahmed Supervisor Job Title: IT

Supervisor Tel. No.: \_\_\_\_\_ Supervisor Mobile No.: \_\_\_\_\_

No.: 01155432266

Supervisor E-mail: abdou.hussein164@gmail.com Training Department(s): DCS

Source of internships: (1) SCAD office (2) on my own (3) Referrals from GUC TA/Dr. (4) Recruitment website (5) others: My Father

Work Place: (1) Organization (2) Head Office (3) Branch (4) Factory (5) Site (6) Others:

### Part II. EVALUATION AND COMMENTS - DIRECT SUPERVISOR'S INPUT

Period of Internship (dd/mm/yyyy)

(dd/mm/yyyy)

From: 3/8/2020

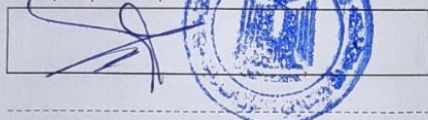
To: 1/10/2020

Internship nature (Enrollment Status)

☐ Part time Please specify, no. of Days per week: \_\_\_\_\_ hours per day : \_\_\_\_\_

☒ Full time Please specify, no. of Days per week: 5 hours per day : 8h

Company Stamp



For SCAD internal use only

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<b>Serial no.</b>	<b>SCAD Comment</b>	<b>Academic Reviewer Comment</b>	<b>Academic Reviewer Signature</b>  <input type="checkbox"/> Accepted <input type="checkbox"/> Rejected  Reason of rejection:  Signature:
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Please evaluate student's performance by marking the appropriate box:

For each of the following aspects, please mark the box in the rating scale that most closely corresponds to your evaluation of the profile of the student during the internship period. Please also feel free to offer comments and suggestions for changes and improvements in the space provided at the end of the form.

**1=Unsatisfactory      2=Below Average      3=Satisfactory      4=Above Average      5=Excellent**

	1	2	3	4	5	NA
<b>Skills &amp; Professional Attributes</b>						
Ability to adapt to change			X			
Analytical skills			X			
Collecting data/ research data skills			X			
Creativity			X			
Follow up skills			X			
Interpersonal skills with peers, supervisors, and clients			X			
Problem solving			X			
Punctuality			X			
Reporting skills			X			
Responsibility and accountability			X			
Stress handling			X			
Taking initiatives			X			
Teamwork			X			
Time management			X			
Other:						
<b>Technical BackgroundX</b>						
Technical Knowledge			X			
Compatibility of technical skills with the job			X			
Other:						
<b>Command of Languages</b>						
Arabic			X			
English			X			

German						
Other:						

1=Unsatisfactory	2=Below Average	3=Satisfactory	4=Above Average	5=Excellent
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	1	2	3	4	5	NA
<b>Computer Programs &amp; Databases</b> Please use space below in specifying the program/software used during the internship and evaluate student's performance accordingly						
Distributed Control System (DCS)				X		
Data sheets and manuals			X			

Overall Evaluation of Student's performance and profile					
Unsatisfactory	Improvement needed	Meets expectations	Exceeds expectations	Exceptional	NA
		X			

**General Comments & Recommendations:** (kindly mention intern potentials, areas of further development or technical constraints encountered during the internship period)

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Yes

No

Maybe

Do you think similar candidates would fit in the Organization culture and qualify for job needs?

X

**Student Signature:**

\_\_\_\_\_Ahmed Abdou

**Date:**

\_\_\_\_\_5/2/2021\_\_\_\_\_

**Supervisor Signature:**

\_\_\_\_\_Abdou Hussien\_\_\_\_\_

**Date:**

\_\_\_\_\_5/2/2021\_\_\_\_\_

### Part III. INTERNSHIP REPORT - STUDENT'S INPUT

- This report has to be prepared by the student, it must be prepared and written in a **computerized** format, submitting the report in hand written format will not be accepted.
- Kindly refer to the Internship Report writing Guidelines on the GUC intranet – SCAD office folder.
- This report will be reviewed and evaluated from internal faculty members.

**Internship Title:** – Software Engineer in Distributed Control System

**Company / Organization Name:** – Esna Hydro Power Plant Generation

**Introduction:** (Not less than 100 words) (should depict the main purpose of the report, covering the objective out of performing this internship in this industry/company specifically then cover the outline for the report's structure)

**Company / Organization Description:** (Not less than 100 words)

**Internship Performed Tasks:** (Not less than 100 words)

**Internship Evaluation:** (Not less than 100 words) (This section should answer the following questions in the form of a paragraph)

What skills do you think that you have gained from the internship? Did the internship meet your expectations? If not, please explain why? How do you think the internship will influence your future career plans? How do you think the internship activities that you carried out are correlated with your studies? Which of the academic courses that you have taken in GUC were the most related to your internship?

**Conclusion:** (Not less than 100 words) (A summary of key conclusions derived from the internship experience. general observations about the sector in which your internship company/institution operates)

Please rate your satisfaction with the internship experience.

☐ Very satisfied      ☒ Somehow satisfied      ☐ Neutral      ☐ Somehow dissatisfied      ☐ Very dissatisfied

Would you recommend this internship to other colleagues?

☒ Yes      ☐ No      ☐ Maybe

**References:** (If any external sources are used, provide references for any information quoted)

**Appendices:** (Upon availability, charts, pictures, etc.)

### Disclosure / Confidentiality Agreement

This agreement is to acknowledge that the information provided by any company / organization during the internship is unique to this business and confidential.

Therefore, anyone reading this agreement agrees not to disclose any of the information provided during the internship without notifying & taking the employer's / supervisor's approval.

# Report

## Introduction:

It was a good opportunity to work in Corona summer internship which helped me to improve my research and technical skills. The main internship goal was to introduce me to the world of distributed control system (DCS), and how it is applied in electricity generation. It was an amazing experience to see all systems starting from water fall and turbines rotation to the electricity distribution. I have been working with human machine interface (HMI). The beginning of the internship was difficult because I was learning and searching online, until I dealt with the systems physically. I worked with live example of Embedded system.

## Company Information:

Esna is an 85.68MW hydro power station. It is located on Nile River/basin in Luxor, Egypt. The project is currently active. It has been developed in single phase. The project construction commenced in 1989 and subsequently entered into commercial operation in 1993. At hydropower plants water flows through a pipe, or penstock, then pushes against and turns blades in a turbine to spin a generator to produce electricity. Esna hydro power station is one of the projects after Aswan High Dam main station, that belongs to Ministry of Electricity and Energy. The company is in the new Esna barrage, located 1.2 km to the north of the old one. The company is responsible for

1. The continuous increase in the head difference due to degradation in the river channel downstream the old barrage.
2. The need to raise upstream levels to supply the different canals with the required irrigation water
3. To make use of the head difference between upstream and downstream to generate electrical power
4. To develop the navigation lock to match the draught of the different types of vessels.

## Internship Performed Tasks:

I took the 3 weeks of the internship exploring ISA-18.2 alarm management system. To update some functionality related to distribution-power system and water control system. And I read to the systems and read the manuals for alarm system and how it is scheduled with all other systems to one Bay control units (BCU). The main task was to create log files for all the information and signals from distribution-power system and water control system. I was working in producing log files for status of the current system on specific periods during the day. These log files will help them in tracking misbehaved systems in the whole BCUs.

## Internship Evaluation:

I love working as software engineer in Embedded systems, I was difficult internship. The searching and learning part were the hardest and most boring part. Until I just used the HMI, where most of the work begins. I was afraid at the beginning when dealing with running components It didn't meet, as the system component were very old and searching online for them was hard and one Year after that a huge upgrade has been made with the help of ABB company

(Swedish–Swiss multinational corporation headquartered in Zürich). I gained the experience of professional working environment. The Embedded system course is the most related one.

### **Conclusion:**

The aim of the internship was to see a live example of Embedded system. And how DCS are controlled using two small servers with their client (HMI) that control them. I was one of the clients' collecting data with logs commands. The working experience in industry site is a good practice for any software embedded engineer. It is different from the academics in the university. Any Industry has distributed control system (DCS) where factories or any power generation (water or steam). And There are many applications of them in Egypt. This internship would give me advantages when applying for job after the university.

### **References:**

- <https://www.power-technology.com/marketdata/esna-egypt/>