Final Consulting Report

on

Improvement in Computer Based Management System

[Agarwal Duplex Board Mills Ltd., Muzaffarnagar]

Date: 22-06-2019

Project
Consultancy

-Dr. Himanshu Hora

&

Student consultants

CERTIFIED

TIN : 09372800375

AGARWAL
DUPLEX BOARD MILLS LIMITED

Office & Works : 4TH KM. STONE, BHOPA ROAD, MUZAFFARNAGAR-251001(U.P.)
© 0131-2614623, 2614200, 2614734, 2411509 FAX : 2614881

Ref. No. ....

Ref. No. RP/ SRC/ 2018-19/93

Date: 28.07.2018

To

The Principal
Shri Ram College
Muzaffarnagar

Subject: Sanction of Rs. 50,000/- to conduct Research Project.

Dear Sir

Please refer to our letter dated 03.07.2018 addressed to Dr Himanshu Hora of Department of Computer Application of our college. We are glad to sanction Rs. 50,000/- as a grant to conduct research work on **"Consultancy on Improvement in Computer Based Management System"**. The expenses shall be strictly made on the heads given in the estimate of the Project.

Kindly note that the work shall be completed in scheduled time and a utilization certificate duly signed by CA shall be provided to us.

Thanks,

For Agarwal Duplex Board Mills Limited

Managing Director

Copy to:
Dr Himanshu Hora, Department of Computer Application, Shri Ram College, Muzaffarnagar for information and necessary action.

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Managing Director

Correspondence Address : 122, SOUTH BHOPA ROAD, NEW MANDI, MUZAFFARNAGAR - 251001 (U.P.)
Regd. Office : 301-AGARWAL CITY MALL, OPP. M-2-K CINEMA, PITAMPURA, NEW DELHI-110034

Co-ordinator
IQAC, Shri Ram College,
Muzaffarnagar

Principal
Shri Ram College
Muzaffarnagar

GOEL RAKESH & CO.
CHARTERED ACCOUNTANTS

57-A, Agarwal Market, First Floor
,Mahavir Chowk,
Muzaffarnagar (U.P) – 251001
Phone No. 0131-2622405

Utilization Certificate

S.N.	Detail of sanction of Fund with Project name and Duration	Amount
1.	365-Day project on Consultancy on Improvement in Computer Based Management System, Date of Sanction of Fund- 03.07.2018 as per Sanction Letter	50000.00/-
	TOTAL	50000.00/-

It is Certified that out of Rs. 50000.00/- (Fifty Thousands Only) of grants sanctioned by Agarwal Paper Mill, Muzaffarnagar during the year 2018-19 in favor of Shri Ram College, Muzaffarnagar, a sum of Rs. 50670.00 has been utilized for the purpose of the project for which it was sanctioned and that the balance of Rs. Nil remaining unutilized at the end of the year has been surrendered. The Extra amount (If any) is met out by Shri Ram College.

2. Certified that we have satisfied our self that the conditions on which the grant was sanctioned have been duly fulfilled/are being fulfilled and that we have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercise-
1 Checking of cash book
2 Checking of payment vouchers.
3 Checking of expenses bills.

For Shri Ram College

Secretary
Place: Muzaffarnagar
Date: 02.06.2019

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Principal
Shri Ram College
Muzaffarnagar

For Goel Rakesh & Co.
Chartered Accountants

Rakesh Kumar Goel
(Proprietor)
M.NO. : 071858
FRN : 003374C

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Muzaffarnagar

Final Consulting Report

Dr. Himanshu Hora & Student Consultants

About the Organization

Agarwal Duplex Board Mills Ltd. is a well-known Manufacturer and Supplier of Kraft Papers, Poster Paper, and Tissue Paper. Fabricated from the finest grade of raw material, our range of products is known for its smooth surface and high quality. We are serving several reputed clients owing to the high quality of our products. Our products are extensively used in educational institutions for arts and crafts, offices, restaurants etc. Moreover, we are very strict on delivery deadlines, reasonable prices, and quality of our products. Also, our team of skilled employees works in close coordination with the clients to meet their requirements and expectations.

Agarwal Duplex Board Mills Ltd., Muzaffarnagar have a talented team of professionals with rich experience in their respective domains. Our team includes procuring agents, quality professionals, manufacturing staff, and skilled workers. These professionals work in close coordination with clients to serve them efficiently.

Scope of Work

In order to smooth functioning and more effectiveness of the system in the Agarwal Duplex Board Mills Ltd., Muzaffarnagar, we started the work from the first week of July-2018 to perform the defined tasks. We performed the specified tasks for the improvement in computer based management system in the following phases:

Phase 1: Performed the scheduled study of the existing system of the industry to understand the processes & procedures and collection of all requirements from the team members of the management. We found that working management system in the industry was developed in Visual Basic – 5 (Older programming language). We observed that configuration of the computer systems was outdated in the industry:
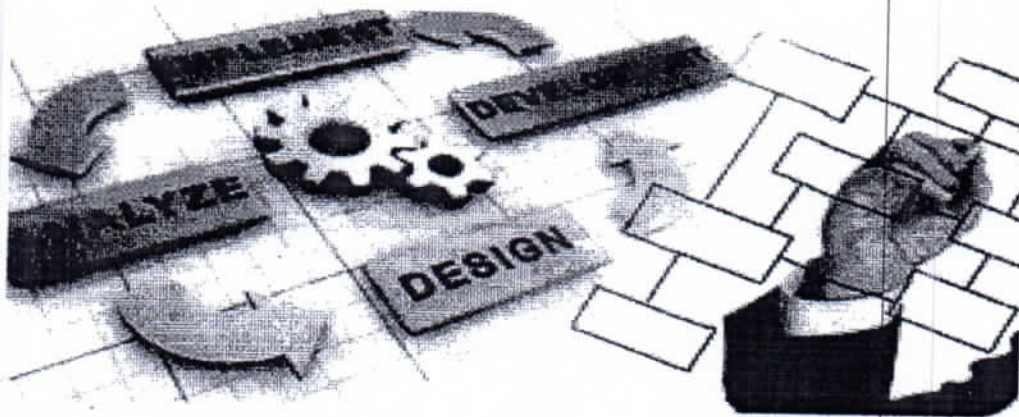
Processor (CPU):	Intel Core2Duo
Operating System:	Microsoft **Windows XP**
Memory:	2 GB RAM
Storage:	100 GB internal storage drive
Monitor/Display:	14" CRT monitor
Network Adapter:	Ethernet Card

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After collection of the aforesaid information we decided for the network topology (**STAR topology**) which will be suitable for the organization.

Phase 2: Performed technical study and estimation of the required equipments for the effective computer network which will be suitable for the industry based on IPv4/IPv6. We also conducted feasibility study for the best setup the improvement in computer based management system in the Agarwal Duplex Board Mills Ltd., Muzaffarnagar.

We recommend systems that meet or exceed the following specifications:

Processor (CPU):	Intel Core i5 (sixth generation or newer) or equivalent
Operating System:	Microsoft **Windows 10 Professional** x64
Memory:	8 GB RAM
Storage:	500 GB internal storage drive
Monitor/Display:	14" LCD Monitor, resolution of 1600 x 900 or better.
Network Adapter:	802.11ac 2.4/5 GHz wireless adapter
Other:	External hard drive for backups

OR

Processor (CPU):	Intel Core i5 (sixth generation or newer) or equivalent
Operating System:	Microsoft **Windows 10 Professional** x64
Memory:	8 GB RAM
Storage:	512 GB internal Solid State Drive (SSD) or 1 TB internal HDD
Sustainability	EPEAT Silver rating (preferably EPEAT Gold)
Monitor/Display:	24" LCD monitor
Network Adaptor:	802.11ac 2.4/5 GHz wireless adapter
Other:	Webcam, lock, external drive for backups

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We found that working management system in the industry was developed in Visual Basic 5. So we performed a study to transform the existing system into **JAVA, C#, PHP** based web based / window based management system for secured and effective working environment. Database (DB) of the existing system was storing in MS-Access. We also performed a study to transform all the scattered data into a centralized database management system (DBMS). We suggested implementing the **ORACLE / MySQL / Sql Server** for the improvement of the computer based management system

Phase 3: Performed a study for the evaluation of efficiency of the technical devices presented in the current network environment. After that we found that the following devices should be replaced for the improvement in computer based management system: **HUB, Switch, Router, Bridge, Modem, Repeater and Access Point.**

Current networking of workstations was not working properly due to disturbance of **NICs (Network Interface Connector)** attached with workstations.
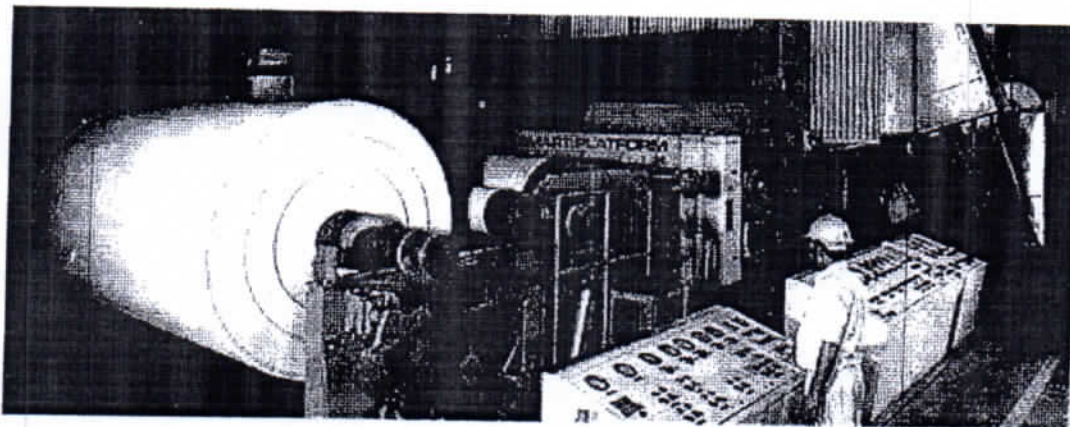
Internal photograph of the Agarwal Duplex Board Mills Limited

We also conducted one-to-one meetings with the employees of the aforesaid industry to motivate and improve the whole system.

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Outcomes:

1. A list of requirements is created as per the study of the system of the industry.

   -Update in software as per the Front-end technology Java/PHP.

   -Fifteen computers with the following configuration

Processor (CPU):	Intel Core i5 (sixth generation or newer) or equivalent
Operating System:	Microsoft **Windows 10 Professional** x64
Memory:	8 GB RAM
Storage:	512 GB internal Solid State Drive (SSD) or 1 TB internal HDD
Sustainability	EPEAT Silver rating (preferably EPEAT Gold)
Monitor/Display:	24" LCD monitor
Network Adaptor:	802.11ac 2.4/5 GHz wireless adapter

   -Oracle/MySQL/Sql Server for the Back-end (Data management).

   -Portable HDD of 1TB/2TB for the data backup.

2. A list hardware requirements based on the study of computer networks (IPv4/IPv6).

   -HUB

   - D-Link DGS-1008A 8-Port Gigabit Easy Desktop Switch
   - TP-Link 5 Port 10/100 Mbps Fast Ethernet

   -Switch

   - Zyxel 8-Port Fast Ethernet Unmanaged Power Over Ethernet Switch
   - TP-Link LS108G 8-Port Desktop/Wallmount RJ45 Gigabit Ethernet Switch

   -Router

   - TP-Link TL-WR820N 300 Mbps Speed Wireless WiFi Router
   - D-Link DIR-819 Wireless AC750 Dual Band Router

   -Bridge

   - Ubiquiti Networks LiteBeam AC Network Bridge 450Mbit/s
   - Ubiquiti Networks PowerBeam M5 PBE-M5-400 Preconfigured 25dBi 5GHz AirMAX Bridge

   -Modem

   - Optronix RL821-GWV G/EPON Optical Network Terminal FTTH Modem with WiFi and VoIP
   - TP-LINK TD-W8961N Wireless N300 ADSL2+ Wi-Fi Modem

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-Repeater

- TP-Link TL-WA850RE N300 Wireless Range Extender TP-Link TL-WR820N 300 Mbps Speed Wireless WiFi Repeater

-Access Point

- TP-Link 300Mbps Wireless N Ceiling Mount Access Point
- TP-Link TL-WA801N 300 Mbps Wireless N Access Point, Multi-SSID Mode

-Cables/Wires

- Quantum RJ45 Ethernet Patch/LAN Cable with Gold Plated Connectors Supports Upto 1000Mbps
- TERABYTE LAN Cable CAT5/5E Network Cable

-Data Server

- My Book 4TB India High Capacity External Hard Drive with Automatic Backup
- WD My Cloud Home WDBVXC0020HWT-BESN 2TB Network Attached Storage

3. Cost analysis of the required technical equipments for the improvement.

4. Report on one-to-one meetings with all employees to improve the system.

5. Exit meeting with the management on June 15, 2019 to introduce our recommendations.

Recommendations:

Recommendation 1: Implement at least fifteen nodes for effective improvement.

Recommendation 2: Update Front-end (Software) and Back-end technology for efficient use of CBMS (Computer Based Management System).

Recommendation 3: Implement network infrastructure plan based on IPv4/IPv6.

Recommendation 3: Employ Network Administrator and System Manager for smooth functioning.

Recommendation 4: Implement ERP for efficient functioning in future.

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Muzaffarnagar

About the Consultant:

Dr. Himanshu Hora Assistant Professor Department of Computer Applications Shri Ram College, Muzaffarnagar	**Neeshu Kumar** Student of BCA Department of Computer Applications Shri Ram College, Muzaffarnagar
Himanshu Sharma Student of BCA Department of Computer Applications Shri Ram College, Muzaffarnagar	**Arjun Arora** Student of BCA Department of Computer Applications Shri Ram College, Muzaffarnagar

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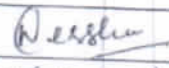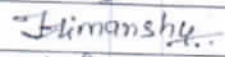Muzaffarnagar

Actual budget/expenditure for the project:
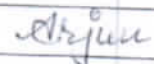
Project cost category	Explanation	Cost (in Rs.)
Human resources	Remuneration to student consultants	11 x 1,500 = 49,500
	Remuneration to project leader	Nil
Travelling spending	To travel from SRC to Agarwal Duplex Board Mills Ltd.	Paid by SRC
Miscellaneous		1,170
Total Cost		50,670

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Muzaffarnagar

Principal
Shri Ram College
Muzaffarnagar

Receiving of remuneration to team members (student consultant)

S. No.	Name	Designation	Remuneration Amount (in Rs.)	Signature
1	Mr. Neeshu Kumar	Student	16,500	*Neeshu*
2	Mr. Himanshu Sharma	Student	16,500	*Himanshu*
3	Mr. Arjun Arora	Student	16,500	*Arjun*

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