

Project Plan

I PRO 338

Business Development Through
BIM and Other Strategies
For Electrical Contractors

ILLINOIS INSTITUTE
OF TECHNOLOGY



Project Sponsor: ECA Chicago

Faculty Advisor: Dan Tomal

Team Members: Ethan Baughey

Annie Hutches

Anthony Clarke

Kelly Castellano

Thair Abdel-Salam

Tom Pekalski

Tristan Larson

Zhi Ma

Allton Kumontoy

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I. Abstract

The IPRO 338 task is to continue from past IPRO efforts in developing business strategies for electrical contractors through the use Building Informational Modeling (BIM). While past IPROs have focused on the efficiency and benefits of BIM for electrical contracting companies. Our teams focus will be on how the benefits of using these new technologies and other business development strategies can help guide electrical contractors towards improving and increasing their overall business endeavors in a recessional and competitive environment.

We plan on concluding our project with a business development module presenting key successful marketing strategies. The developed deliverable is geared towards assisting members of our sponsoring Electrical Contracting Association (ECA).

II. Team Information

IPRO 338 Sponsor : Electrical Contracting Association of Chicago (ECA)

Faculty Advisor : Dan Tomal: Illinois Institute of Technology: drtomal@aol.com

Team Member Roster:

Abdel-Salam, Thair	abdetha@iit.edu
Baughey, Ethan	ebaughey@iit.edu
Castellano, Kelly	kketcham32@hotmail.com
Clarke, Anthony	tclarke81@yahoo.com
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Meeke, Megan	mmeeke@iit.edu
Pekalski, Tom	tpekalsk@iit.edu
Rodriguez, Edgar	erodrig8@iit.edu

Team Member Needs, Strengths and Expectations

Abdel-Salam, Thair: Electrical Engineering: abdetha@iit.edu

- Strengths: Good electrical background, team work, time management, and Excel.
- Weaknesses: Public speech, creativity.
- Knowledge/ Skills to develop: Group participation, awareness of ethical issues, and planning basics.
- Expectations: To be ready for real life challenges that appear in workplaces, problem solving based on team work, and gaining evaluation methods to help in professional life.

Baughey, Ethan: Chemical Engineering: ebaughey@iit.edu

- Strengths: Strong leadership ability, communication, and vision to complete a task.
- Weakness: Micromanagement
- Knowledge/ Skills to develop: Ability to let others do work and let a project go in others hands.
- Expectations: To see a product come out of this that is helpful to the ECA. Also to have a great teambuilding experience where I can learn to trust my team.

Castellano, Kelly: Architecture: kketcham32@hotmail.com

- Strengths: Photoshop, visual design. Organizing research. Creating sound arguments from researched data.
- Weakness: not familiar with BIM or Electrical engineering, know very little about field or business strategies.
- Knowledge/ Skills to develop: Personal networking strategies, team leadership and knowledge of BIM.
- Expectations: to learn to work collaboratively with people from many different fields and develop tools to help myself or my future employer find work in a troubled economy.

Clarke, Anthony: Industrial Technology and Management: tclarke81@yahoo.com

- Strengths: I have almost 10 years of experience in the electrical industry, good communication and coordination skills, team/project management, quality control, and documentation
- Weaknesses: public speaking
- Knowledge/ Skills to develop: public speaking, cross-functional teamwork, the "ins and outs of electrical contractors business strategies
- Expectations for project: To come up with a business strategy that will give the electrical contractors of the ECA the best possible means of finding work. On a personal note: to improve my skill set, especially in regards to the skills needed in meetings/teamwork

Hutches, Annie: Architecture: ahutches@iit.edu

- Strengths: Good organization skills and time management skills, ability to decipher what parts of a project needs the most attention at what time.
- Weaknesses: Coming up with innovative ideas in regard to business marketing, putting ideas that I have into words.
- Knowledge/ Skills to develop: Learn more about the business marketing world, and learn how to work within a team and as a team.
- Expectations for Project: I would like to be more comfortable working in a team setting with little teacher intervention. I would also like to produce something for the ECA that has some value to them.

Kumontoy, Allton: Architecture: akumonto@iit.edu

- Strengths: Strong organization skill, Experience in graphic oriented software such as photoshop, illustrator and in design, enjoys working in a group.
- Weaknesses: Defining scope of work, can sometimes be too aggressive during discussion.
- Expectations: I expect to learn more about the process of job contracting in in construction industry in particular the electrical contracting, and also to learn the effect of BIM in this industry..

Larson, Tristan: Civil Engineering: tlarson6@iit.edu

- Strengths: Public speaking experience, strong interpersonal skills, good work ethic, ability to learn quickly and apply new knowledge.
- Weaknesses: Easily distracted, not knowledgeable in electrical engineering or business practices, lack of experience in a business environment.
- Knowledge/ Skills To Develop: Learning the ins and outs of the business side of engineering, learn how to work as an autonomous and efficient team.
- Expectations: To make an impact in the practices of local businesses, to learn about the market for engineering

Ma, Zhi: Electrical Computer Engineering: zma10@iit.edu

- Strengths: Good logic analysis, time management ability, working hard, familiar with Electrical Engineering knowledge.
- Weaknesses: Public speaking, leadership knowledge
- Knowledge/ Skills to develop: Communication, Marketing, work efficiently with team members.
- Expectations: Have a nice experience working with people from different field and produce something valuable for ECA to create more business.

Meeke, Megan: Biology Email: mmeeke@iit.edu

- Strengths: Communication, organization, problem solving techniques. Good knowledge of MS Word, PowerPoint, Excel, and Photoshop.
- Weaknesses: No experience with BIM
- Knowledge/ Skills to Develop: Improved organizational and project management skills, exposure to BIM.
- Expectations: Strengthened Project Management Skills, Exposure to BIM, develop networking contacts.

Pekalski, Tom: Electrical and Computer Engineering: tpekalsk@iit.edu

- Strengths: Some exposure to business marketing and sales. Have a strong background in Electrical Engineering. Able to work very efficiently and deliver results. Visionary.
- Weaknesses: Public Speaking, being assertive at times.
- Knowledge / Skills to develop: Investigation into better business strategies. Learning how to deliver better presentations and get rid of the fear of public speaking.
- Expectations: To develop a proven business strategy for ECA that would attract more customers and bring more business to the company.

Rodriguez, Edgar: Architecture: erodrig8@iit.edu

- Strengths: AutoCAD, Rhino, Adobe Indesign/ Photoshop/ Illustrator, and Excel.
- Weaknesses: Unfamiliarity with BIM and business development.
- Knowledge/ Skills to develop: Learn good team working skills and learn about business development.
- Expectations: Contribute towards the team effort to develop business development strategies aided with BIM benefits, for the possible use of electrical companies.

Team Identity

Name: RAINMAKERS

Motto: "Making It Rain 365"

Logo:



Team Purpose:

Our purpose is to work as an inter-professional team towards identifying successful business development strategies with the integration of past IPRO's findings on the benefits of BIM. Our results will assist electrical contractors towards successfully marketing themselves in any economical climate.

Objectives:

Team Objectives-

- Avoid procrastination
- Be responsive and accountable
- Have everyone in the IPRO team contribute to the project
- Have good interactions with and satisfy our ECA sponsor

Project Objectives-

- Research business development strategies
- Interview an array of electrical contractors on their business strategies
- Identify how Building Informational Modeling can be used to help secure new work
- Identify potential Federal and State grants/projects and other potential business opportunities
- Identify the role union contracts may have on business development strategies
- Devise a business development module to assist ECA members

III. Background

Electrical Contractors' Association ECA in the city of Chicago is the sponsor of IPRO 338 for the fall 2010 semester. ECA provide it members with resources and information about the business. It also provides them with a dynamic tool for professional development in their field. In addition, it grants its members with helpful information on association business, training opportunities, and services, including labor relations, codes, standards, and association committees.

The user main problem of this IPRO is the ability of electrical contractors to network, market, and increase business, especially during times of economic recessions, in order to maintain a competitive working atmosphere in the future.

We will address this problem through what the previous IPRO team developed on Building Information Modeling BIM, research strategies, technologies, and ideas for electrical contractors that may assist them in business development nowadays. The team will also do surveys and interviews with ECA's business development members to agree on what will make the business expand and hire new Contractors.

This IPRO will be taking a different direction then the last semester's IPRO. The previous IPRO primarily focused on Building Information Modeling BIM technology and on improving its models. On the other hand, this IPRO will focus on strategies that electrical contractors will imply to increase and explain their business in the future.

There are a few ethical issues related to the topic that the team is investigating. One of the issues related to each company's guideline that they work within and the strategies they follow to improve business that will be used for our research. This information will be kept a secret to avoid future conflict with other companies. Another issue is a labor issue in which hand accomplished jobs will be replaced with machines.

Due to the nature of the problem this IPRO is handling the main business cost is that if there is no business development there will be no hiring for electrical contractors because there is no need for them which will lead to no work for new ECA members and therefore higher rates of unemployment in the society. This business cost will generate a societal cost in higher rates of crime and a less stable state in the long run. Another societal cost is the dependence on mechanical efforts by employing BIM and other programs rather than the efforts of designers.

The team has brainstormed some solutions for developing business. One of these solutions in addition to building information modeling BIM is to understand all the core competencies of a business, and to be familiar with what differentiates the surrounding ones from the main business. In addition, take care of the business existing clients and know their needs and to identify areas in the business which a potential gain can be achieved. Another solution is to contact, meet, or even have lunch with the business development members to hear what they need and collect feedback on how to develop their existing business and increasing it.

Other solutions to this problem are to have a marketing plan for the business. Networking is the greatest marketing plan nowadays. Networking means basically have a website since more people are likely to use the internet to research for an electrical contractor. The website should always be up to date, and be checked for errors and inaccurate info relating to the business. A less efficient approach to marketing is listing the business in the yellow pages or even in the newspaper. Issuing studies and brochures on how to develop a business is another way to approach this problem.

IV. Team Value Statements

The main desired team behaviors are:

- Treat all other team members with respect.
- Meeting on the arranged time to get the maximum benefits meeting.
- Have a clear way to communicate inside the classroom by Speaking loudly and clearly so everyone could hear, and outside the classroom by Igroups, email, phone, etc. to prevent us of losing track of the work.
- Sharing all the information with the entire team to get feedback from them.
- Address the conflicts and misunderstandings between team members face to face to avoid losing valuable research data or lacking the progress of finding solutions to the problem.
- Keeping up with the tasks that are assigned to each team member and not failing behind.
- Having tasks done and ready to be submitted on time to avoid penalties and reduction points.

The methods used to address problems:

- Discuss and address the upcoming problems within the sub- teams between the leader and the members of each team since we have divided the class into sub-team based on their task. Team members of each sub-team may exchange phone numbers.
- Also member can discuss problems with the IPRO instructor by all opened communication. This is done to keep focus on the project goals, and to direct our efforts in a positive direction.

V. Work Breakdown Structure

Team Structure:

The team will be divided into three subgroups, Research, Content, and Tech.

- The research subgroup will be in charge of gathering information through questionnaires that will be passed on to members of the profession and also through interviews with some of the business owners. The team will also be looking for information from trade journals and research papers related to the topics of BIM and electrical construction.
- The content team will be in charge of processing and organizing the information gathered. The team would also be in charge of alerting the class about upcoming deliverables and what is required.
- The tech team is in charge of creating presentations in the form of powerpoint presentation, poster board, and flyers.

Appendix A : Gantt Chart

VI. Expected Results

Potential Problems:

The main objective of this IPRO is to explore new business development strategy for electrical contractors. Increasing usage of BIM in the construction industry and electrical profession in particular is a significant change that will affect how business owner will conduct their operation and how present and future clients will choose their contractors. While the advantages of changing from a 2D CAD system into a more holistic BIM system are obvious, there are costs associated with the change that is not as self evident.

To learn more about these topics, the team will be involved in several key activities. The team will be interviewing members of the electrical construction profession to understand the perspective of the business owners. The team will also attend lectures presented by members of the Electrical Contractor's Association to get a broader view of the industry. The team will also take part in several field trip to see first hand how BIM affect electrical contractor during construction.

At the end of the semester, the team would have a good grasp of how an electrical construction firm operates before and after adopting BIM. The team would also understand the process of obtaining a contract for an electrical construction job. The team plan to utilize these knowledge to develop a methodology for creating networks of potential new clients and eventually new contracts.

Potential Problems:

Obtaining data relating to sales and profit from individual businesses might be challenging since business owners tend to be more guarded about that information.

VII. Budget

The team of IPRO set a group of activities that will come up during this project as shown in the table below:

activity	Costs (\$)
Team building activities	\$250
Travel/ Visiting sites (including on site visit with sponsor)	\$100
Equipment/Devices for interviews	\$30

VIII. Designation of Roles

The team has assigned the following roles to these members:

- **Minute Taker** : Annie Hutches.
- **Agenda Maker** : Ethan Baughey.
- **Time Keeper** : Annie Hutches.
- **IGroups Moderator** : Steve Alvord.

