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| Pegasus%20-%20Black%20on%20White | | | | Department of Industrial Engineering & Management Systems  College of Engineering & Computer Science  University of Central Florida | | | | | | |
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| **EIN4891C: IEMS Senior Design** | | | | | | |
| **Proposed Project Description Form\*** | | | | | | | | | | |
| (Customers willing and able to provide Team Donation for $1500 or more will fund necessary | | | | | | | | | | |
| Administrative/Project costs that are no longer funded due to Budget constraints)  Will support: **Yes, will support** Cannot support | | | | | | | | | | |
|  | | | | | | | | | | |
| Sponsoring Organization: | | | | | | ImageServe, Corp. | | | | |
|  | | | | | | | | | | |
| Mailing Address: | | | 860 Park Ave. N., Winter Park, FL 32789 | | | | | | | |
|  | | | | | | | | | | |
| Project Contact: | | Dave Owen | | | | | | Position: | | President |
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| Contact Phone: | 407-644-2175 | | | | | | Fax: | | 267-295-8216 | |
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| Contact E-mail: | Dave@imageserve.com | | | | | | | | | |
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| Project Title *(working)*: | | | | | 3D E-Commerce | | | | | |

*Please feel free to use as much space as needed for each of the sections below.*

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| **Background of Company/Organization**  (Provide a brief overview of the company/organization and the specific project location here) |
| ImageServe is a 20-Year old Internet Development Company in Orlando, Winter Park and Atlanta specializing in [**Web Design**](http://www.imageserve.com/srv_webdesign.cfm)**,** [**Database Applications**](http://www.imageserve.com/srv_databaseapp.cfm)**,** [**Intranet**](http://www.imageserve.com/srv_intranets.cfm)**,** [**Content Management**](http://www.imageserve.com/srv_contentmanagement.cfm)**,** [**E-Commerce**](http://www.imageserve.com/srv_ecommerce.cfm)**,** [**A/V Conference Management Services**](http://www.imageserve.com/srv_av.cfm)**,** [**iPad Consulting**](http://www.imageserve.com/srv_ipad.cfm)**,** [**Flash**](http://www.imageserve.com/srv_flash.cfm)**,** [**Video**](http://www.imageserve.com/srv_videoproduction.cfm)**,** [**Podcasting**](http://www.imageserve.com/srv_podcasting.cfm)**, and** [**Music Production Services**](http://www.imageserve.com/srv_music.cfm).  The Internet is a powerful business tool and our process starts with a clear understanding of what a company's goals are. Then we create an Internet approach to help achieve those goals.  We have helped many organizations utilize the Internet for Increased Sales, Cost Reduction, Improved Productivity, and Branding.  For more information about our company and services, visit: [**www.imageserve.com**](http://www.imageserve.com) |
| **Statement and Scope of Problem(s)**  (Provide the problem statement here; Please be as specific as possible to help understand the scope of the problem, and thus the scope of the project, and the design content) |
| 3-D Printing is projected to penetrate the home market over the next several years. We believe there is an opportunity to offer 3D Printing E-Commerce Services to businesses who wish to place their products on-line for downloading and 3D printing. Our vision is to provide a turnkey offering to companies by providing CAD renderings of their products and placing 3D print ready files on the Internet for purchase and download by consumers and businesses. There are many consumer level 3D Printers on the market today. Our need is to create downloadable files that work with the major hardware on the market so we can provide on demand products through Internet E-Commerce. Therefore, we need to create files with an API that works with multiple 3D printers. In addition, the files that are downloaded will need to be printable once only, or in a limited run, so they are not distributed for free to others. The programming must be compatible with both PC and Macintosh environments.  ImageServe will provide the E-Commerce portion of the project such as Web Site, credit card processing and file downloading. We have secured the participation of Florida Frame House and Gallery as a test subject for implementation ([**www.floridaframehouse.net**](http://www.floridaframehouse.net)). Our initial goal is to offer a handful of picture frames that consumers can download and print in 3D.  Also, we believe that as home and business 3D Printing penetration advances, service centers, such as Office Depot, will begin offering 3D Printing capabilities on a pay by use basis. Eventually, we see the cost coming down and the quality improving of consumer 3D Printers just as ink jet printing has done. |
| **Overall Project Goal(s)**  (Describe the overall goals of the project in this space) |
| - Mentor Students in a Real World Corporate Project Analysis and Execution. This project is intended to be implemented on a live E-Commerce Web Site.  Programing Deliverables:  1. Programing Strategy/Approach Document including specifications and flowchart  2. Pseudo code  3. Programing with complete comments throughout  4. Beta Test and Tweaking  5. Demo to management  6. Tweaking  7. Final Documentation  8. Program delivery.    **Note:** We feel it is important that the students on this project have the equipment they need to execute the assignment properly. We would like to review the equipment that the department has on hand to see if it is sufficient and discuss any donation of necessary additional resources. These additional resources will be given to the department at the project’s conclusion. |
| **Project Objectives**  (Enter the project objectives that will help to achieve the goals of the project; Please be as specific as possible) |
| I feel that to make this project as valuable as possible to UCF students, we should treat it as a Business Proposal such as would be done to Corporate Management or Venture Capitalists. I have an Industrial Engineering Degree from UCF and an MBA from Emory University. I have spent my career in the business world and my IE training has served me well in accomplishing my work. However, real world experience in a business environment is essential training in being effective in a corporation. Communication skills, both verbal and written, are vital to being successful in implementing new ideas. I hope this project will provide the students experience in areas outside of the classroom needed to be effective in the workplace.  Also, feel free to distribute any press releases in publications such as the department newsletter to further recognize the team. |
| **Expected Project Deliverables**  (Enter the expected project deliverables including, if possible, proposed project tasks; Please be as specific as possible) |
| - Market Analysis/Feasibility Study  - Business Plan  - Project Work Plan and Timelines  - Programing code deliverable as outlined above.  - Prototype Testing  - Status Update Meetings  - Final Project Presentation to Senior Management and Professors. |
| **Desired Core Competencies and Experience of Team**  (Please list the desired competencies/experience/knowledge needed by the project team members that you feel will facilitate successful project execution; Examples: CAD, Quality Control/Management, Facility Layout, Computer Simulation, Optimization/Mathematical Modeling, Cost Analysis, Statistics, Computer Programming, etc.) |
| 3D CAD Software Experience, API Programing Skills, Presentation Skills to a Business Audience, Feasibility Study/Business Plan Preparation, Leadership Skills in Project Management. |
| **Other Special Considerations and Project Requirements**  (Please provide any special circumstances, constraints, and requirements needed by the project team members; Examples:   * University participants must be US Citizens or Permanent Residents, * Project and data collection are to be completed on an off-shift, * All work is to be performed on-site, * All team members and the professor must submit to background checks, * All team members and the professor must sign non-disclosure agreements) |
| - Team composed of Industrial Engineering and Computer Science Students. |
| **Project Mentor(s), if different than who is listed above**  (Please provide the contact information and title/position for the project mentor(s), who will advise the student team on-site) |
| Dave Owen  ImageServe  860 Park Ave. N.  Winter Park, FL 32789  Dave@imageserve.com  407-644-2175  Fax: 267-295-8216 |

*\*IMPORTANT NOTE: Customer Organization Must Be Able To Badge & Administratively Outfit Students Within The First Week Of The Semester To Ensure All Requirements For Graduation Can Be Met On The Strict University Timeline. Professor Calabrese And The Customer Contact Can Begin Working This Time-Critical Issue Prior To The Start Of The Semester If Necessary. Customers agree to work to the University-required graduation schedule to ensure grades and feedback are provided in a timely fashion.*