**Synopsis on**

**Analysis of Bangla Scene Text for Recognition using OCR**

**Department of Information Technology**

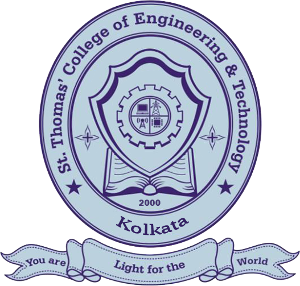
**By**

**SIDDHARTHA ROY**

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**Under the guidance of**

**DR.RANJIT GHOSHAL**



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**Affiliated to**

**Maulana Abul Kalam Azad University of Technology, West Bengal**

We are submitting the synopsis on Analysis of Bangla Scene Text for Recognition using OCR as a part of our final year seventh semester project under the guidance of DR.RANJIT GHOSHAL.

**Siddhartha Roy Arkoprovo Sircar**

**Guide’s Signature**

DR.RANJIT GHOSHAL

**Vision:**

To promote the advancement of learning in Information Technology through research oriented dissemination of knowledge which will lead to innovative applications of information in industry and society.

**Mission:**

* To incubate students grow into industry ready professionals, proficient research scholars and enterprising entrepreneurs.
* To create a learner- centric environment that motivates the students in adopting emerging technologies of the rapidly changing information society.
* To promote social, environmental and technological responsiveness among the members of the faculty and students.

**PEO:**

PEO1: Exhibit the skills and knowledge required to design, develop and implement IT solutions for real life problems.

PEO2: Excel in professional career, higher education and research.

PEO3: Demonstrate professionalism, entrepreneurship, ethical behaviour, communication skills and collaborative team work to adapt the emerging trends by engaging in lifelong learning

**Project Mapping with Program Outcomes:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| 3 | 3 | 3 | 3 | 2 | 2 | - | 2 | 3 | 2 | 3 | 3 |

Enter correlation levels 1, 2 or 3 as defined below:

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

**Justification:**

PO1: For the execution of the project mathematical and programming knowledge of MATLAB should be present for better understanding.

PO2: We need to detect scanned images which contains other non-textual data elements, which are to be removed for accurate extraction of text.

PO3: The entire problem is divided into sub-problems viz. developing a new binarization algorithm, designing ‘matra’ detection algorithm, text segmentation, etc.

PO4: Various research has been done to understand the existing methods of pre-processing techniques for extraction of (Bangla) text from captured images.

PO5: Various experiments have been done to understand the application of Hough Transform for automated analysis of digital images.

PO6: The project is based on the already existing algorithms so as to know what improvements can help the society in a better way. In order to build something new, proper research is essential.

PO8: Throughout the project, it was ensured that no plagiarism has been incorporated.

PO9: For the proper implementation and execution of the project team collaboration is very essential along with individual performance.

PO10: The clients’ requirement of the ability to recognize Bangla text has been fulfilled.

PO11: Proper project management has been done under the supervision of the guide.

PO12: As there is no readily available OCR in the market meant for Bangla text, ours will be able to meet the necessity of the society.

**PSO:**

**PSO1( Programming ):** Apply the programming knowledge to build an efficient and effective solution of the problem with an error free , well documented and reusable code, user friendly interface and well organized database**.**

**PSO2 (Multimedia and Web Authoring) :** Create multimedia enabled web solutions using information in different forms for business, education and the society at large, with the help of suitable authoring metaphor and taking into considerations the interactivity and human computer interaction aspects.

**PSO3 ( Software Engineering ) :** Understand and analyze a big complex problem and decompose it into relatively smaller and independent modules either algorithmically or in an object oriented way choosing correct life cycle model and using effective test cases**.**

**Project Mapping with Program Specific Outcomes :**

|  |  |  |
| --- | --- | --- |
| **PSO1** | **PSO2** | **PSO3** |
| 3 | - | 2 |

Enter correlation levels 1, 2 or 3 as defined below:

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

**Justification:**

PSO1: For the implementation and execution of different algorithms proper programming skills are needed so as to understand and define the problem at hand and find the most suitable solution to it.

PSO3: The entire problem is divided into sub-problems viz. developing a new binarization algorithm, designing ‘matra’ detection algorithm, text segmentation, etc.