7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Best practices-2

1. **Title of the Practice**

   Skill Development Centre (SDC)
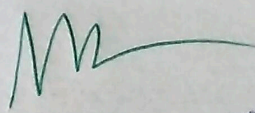
2. **Objectives of the Practice**

- To seek full time Employment for all the Students
- Recognize the students core competencies
- Prepares students to meet the Industry Expectations
- To improve Programming skills in order land placements with various companies
- To develop socio-emotional skills, which include Leadership, Teamwork and Self-control

3. **The Context**

   Getting a good job in a reputable organization is a dream for most Engineering Students. Employment skill training essential in shaping students career goals. Every Engineering Students dream is to be hired by a good organization where they can exhibit their skills. Considering this important factor, it is realized the training is necessary for our student to improve their Employability skills and achieve good placements in various industries.

   At the moment, the competition for jobs is increasing by the day and finding a job has become a difficult task. Training and equipping the students with various skills has become essential responsibilities of the Institution.
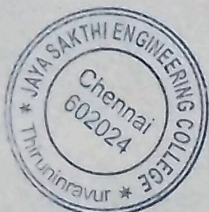
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4.   **The Practice**

The **Employability skills development program** has been designed to increase student awareness in career planning and career mapping.
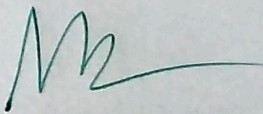
- Introduce student to ideas of learning, unlearning and relearning
- Ensure that the students are staying up-to-date with the knowledge relevant to the industry.
- Encourage students to watch the trends and practice foresight.
- Make them practice key learning at home using technology powered applications.

In Jaya Sakthi Engineering college, Staff members are advised to update Skill development Centre by advising students with more minor and major projects and to motivate those works on hands on projects.

5.   **Evidence of success**

The detailed project information of all projects is maintained by SDC. The Pre Final years students are visiting the SDC regularly and clarifying doubts for the future enhancements. After creation of SDC, from **department of Computer Science and Engineering,** One batch done a project **in Real-time object detection to improve surveillance methods** is a promising application of Convolutional Neural Networks (CNNs). One particular application is the **detection of hand-held weapons** such as Knifes, Pistols and Rifles. After Creation of Cell about **15 students completed** their projects with technical assistance from the SDC.
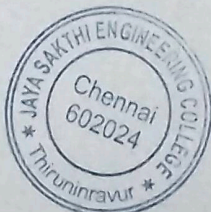
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Fax : 2634 3770

Prof. Dr. A. Kanagaraj, M.A., M.Phil., Ph.D.,
Chairman

**Mrs. K. Vijayakumari,** M.A., B.Ed.,
Secretary

Students Innovative Projects have been increased through SDC and participated in some competitions held in various Institutions and Organizations.
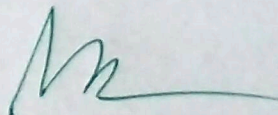
The **success of Employability Skills Development Program** is to provide students with personal and career-related support, with a special emphasis on training students with employability skills and ultimately providing placement in various industries/ organizations through campus recruitment drives

6.   **Problems Encountered and Resource Requirement**

We are not able to keep some of the hardware projects because it is connected with computer.

Encouraging students is a big task for the mentors as well as other faculty members.
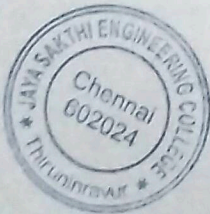
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Secretary

LIST OF STUDENTS TRAINED IN SKILL DEVELOPMENT CENTRE (SDC)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

S.NO	NAME	REGISTER NUMBER
1	JAYASREE .V	112018104002
2	KARTHIKEYAN.S	112018104003
3	KRISHNAMOORTHY. S	112018104004
4	NARESH . N	112018104006
5	OMEGA. S	112018104007
6	PRABHAKARAN . D	112018104008
7	PRITHIKA.N	112018104009
8	SATHYADASS . S	112018104011
9	SINDHU. S	112018104012
10	SREEJITH .B	112018104013
11	YAMINI G	112018104301
12	AKASH M	112017104001
13	BAGAVATHEESWARAN R	112017104002
14	DINESH.B	112017104004
15	DIVYA R	112017104005
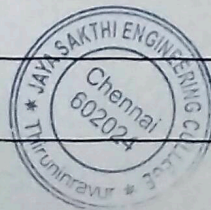
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Thiruninravur, Chennai-602024

CSE Students Project Batch Details

REGISTER NO	NAME	PROJECT TITLE
112018104002	Jayashree .V	Randomized Conversation Matrix Based Shoulder Surfing Resistant System
112018104011	Sindhu. S	
112018104301	Yamini G.	
112018104003	Karthikeyan.S	Flexible-Event-Triggered Filter-Design With Restraint And Cyber Attacks
112018104009	Sathyadass . S	
112018104004	Krishnamoorthy. S	Random Forest Model With Label Text Encoder In Pharmacies
112018104013	Sreejith .B	
112018104005	Naresh . N	Embedding Audio And Video For Secure Data Transfer Using Lsb And Wavelet Transform
112018104007	Prabhakaran . D	
112018104006	Omega. S	Real Time Weapon Detection Using Region Based Spatio-Temporal Machine Learning Techniques
112018104008	Prithika.N	

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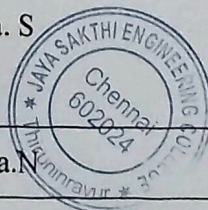
Prof. Dr. A. Kanagaraj, M.A., M.Phil., Ph.D.,   Mrs. K. Vijayakumari, M.A., B.Ed.,
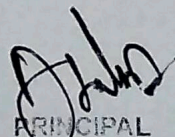Chairman   Secretary

DEPARTMENT OF MECHANICAL ENGINEERING

Students Project Batch Details:

SL. NO.	REGISTER NO.	NAME	PROJECT TITLE	NAME OF THE SUPERVISIOR
1	112018114001	Kamalesh.M		
2	112018114002	Rabin.P	Tensile Test on Dissimilar Metals of Aluminum 6063 and Aluminum 8112 Welded By GTAW Method	P.Karthikeyan, A.P/Mech
3	112018114003	Sam Solomon.J		
4	112018114302	Karthikeyan.K	Experimental and Analysis of Burr Elimination in Case pipe Hole Drilling on Watch Cases	D.Loganathan, A.P/Mech
5	112018114303	Mohamed YasenKhan.A.K		

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SKILL DEVELOPMENT CENTRE (SDC)

FEATURES in SDC:

- I5 -12th Generation
- I5-4th Generation
- Dual Core Processor

Softwares used

- IBM Rational Rose Software
- English Communication -Globarena Software
- Java,C,C++,Jupiter-Python package
- Android tools software
- CAD

Hardware Equipments and Accessories, Tools are available for students

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Faculty instructing the students to develop their skills in SDC
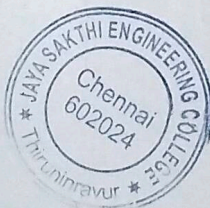
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CSE Students assembling the Hardware Equipments

CSE Students done their Software projects in SDC

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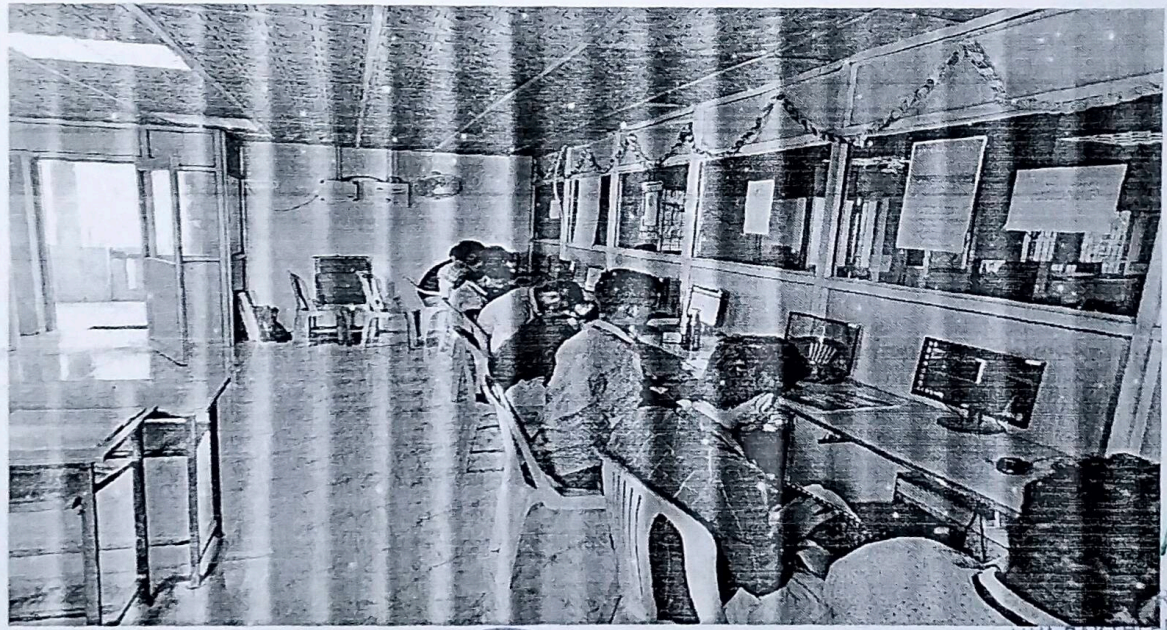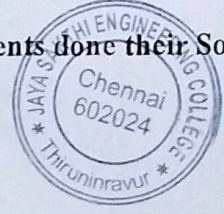   044 2634 4282
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Mechanical Students Done Tensile Test for the Metal Aluminium

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PROJECT REPORTS

REAL TIME WEAPON DETECTION USING REGION BASED SPATIO-TEMPORAL MACHINE LEARNING TECHNIQUES

A PROJECT REPORT

Submitted by

OMEGA.S   (112018104007)

PRITHIKA.N   (112018104009)

in partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

JAYA SAKTHI ENGINEERING COLLEGE,THIRUNINRAVUR

ANNA UNIVERSITY : CHENNAI 600 025

JUNE 2022

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ABSTRACT

Real-time object detection to improve surveillance methods is a promising application of Convolutional Neural Networks (CNNs). One particular application is the detection of hand-held weapons such as Knifes, Pistols and Rifles. Thus far, mostly focused on weapon-based detection within infrared data for concealed weapons. By contrast, we are particularly interested in the rapid detection and identification of weapons from images and surveillance data. The increase of video surveillance in public spaces and the proliferation of body cameras for police can potentially be leveraged for weapon detection systems. Video systems could alert police and surveillance personnel when a weapon is detected in real time, resulting in prompter action. In existing system, image classification research including the analysis of infrared data for weapons, the detection of hand-held knife detection in infrared images. Shape detection algorithms and object detection algorithms have been tested to find accuracy in detection and analysis the processing time before implementing in such environment and results provide will monitor minimal surrounding area .Although the human visual framework is quiek, it is common truth that if an individual watches something very similar for quite a long time, there is an opportunity of sluggishness and lack of regard. Our proposed system implements an CNN in order to detect the action sequence of a weapons being drawn found that video action sequences could be effectively trained with CNNs (spatio-temporal features), and then classified using CNN.

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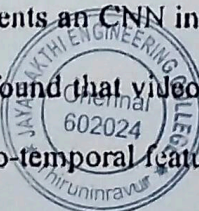
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Secretary

ANNA UNIVERCITY : CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report "REAL TIME WEAPON DETECTION USING REGION BASED SPATIO-TEMPORAL MACHINE LEARNING TECHNIQUES" is the bonafide work of "OMEGA.S (112018104007) & PRITHIKA.N (112018104009)" who carried out the project work under my supervision.

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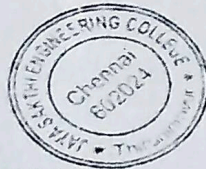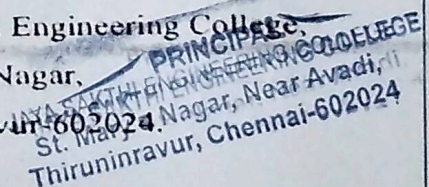
Mrs.P.Jayasri Archana devi,M.E.,
HEAD OF THE DEPARTMENT

Department of Computer Science
and Engineering
Jaya Sakthi Engineering College,
St.Mary's Nagar,
Thiruninravur-602024.

SIGNATURE

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SUPERVISOR
ASSISTANT PROFESSOR
Department of Computer Science
and Engineering
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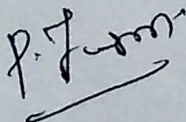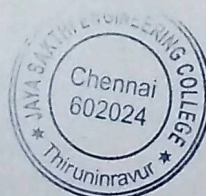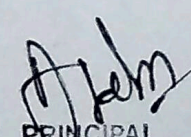Prof. Dr. A. Kanagaraj, M.A., M.Phil., Ph.D.,
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Secretary

5. CONCLUSION AND FUTURE ENHANCEMENT

5.1 CONCLUSION

Designed system is experimented with datasets for both videos and images that are collected from YouTube and Google, collected dataset is of type robbery, murder and some illegal activities holding weapons in hand, whereas the use of weapons are strictly prohibited in areas like ATM, Bank and some public places. The main aim of project is to detect the weapons in less training time with accurate results and reducing false conditions compared to machine learning techniques and to make CNN work without performance degradation with less number of training samples. Keras will help to extract feature from pre-trained weights of ImageNet model trained with possible large datasets, a layer extracts the feature pattern from pre-trained images of ImageNet. If a person is detected with weapons like gun and knife then our system sends the crime intention detection security message to the register number. Proposed system gives good results compared to other existing approaches for crime detection. The Designed Crime Intention Detection System features can be embedded to CCTV to detect the crime scenes like detection of gun, knife in hands of persons, if crime is to occur the added feature make the CCTV to send automatically the crime intention security messages to register number.

5.2 FUTURE ENHANCEMENT

In our proposed work, we detects the weapons like knife, long gun and short gun. In future we like to detect for more weapons with the same process by Convolutional Neural Networks.

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Thiruninravur, Chennai-602024

FLEXIBLE-EVENT TRIGGERED FILTER-DESIGN
WITH RESTRAINT AND CYBER ATTACKS

A PROJECT REPORT

Submitted by

S.KARTHIKEYAN   (112018104003)

S.SATHYADASS   (112018104011)

In partial fulfillment for the award of the degree

Of

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RANDOMIZED CONVOLUTION MATRIX BASED SHOULDER SURFING RESISTANT SYSTEM

A PROJECT REPORT

Submitted by

JAYASHREE.V   (112018104002)

SINDHU.S   (112018104012)

YAMINI.G   (112028104303)

in partial fulfillment for the award of the degree

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Secretary

PLACEMENT PROOF OF THE STUDENTS TRAINED IN SDC:

- One of the students in CSE Department Ms. Omega placed in **Firstsource** as a **Software Engineer** with good package.

Offer Letter

RP - Sanjiv Goenka Group
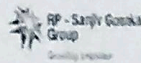
firstsource

Date: November 9, 2022

Sub: Offer of Employment

Dear Omega,

We are pleased to make you an offer of employment at Firstsource Solutions Limited("Company"), for the position of **Associate - Software Engineer** . H at the company's Bangalore office.

The break-up of the salary offered is provided below.

COMPONENT	AMOUNT (Rs)

Print Preview

- **Mr.Karthikeyan** in CSE Department also placed in **Datamark** as a Project Associate

ID Card

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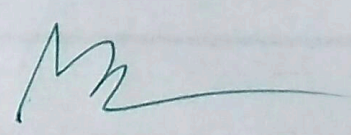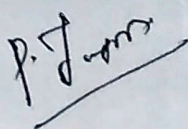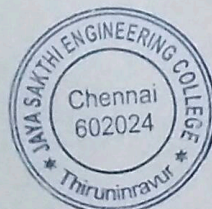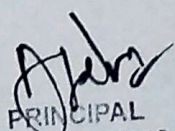www.sakthiec.edu.in   Email : info@sakthiec.edu.in

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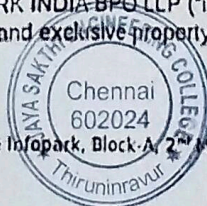**Mrs. K. Vijayakumari,** M.A., B.Ed.,
Secretary

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INDIA BPO LLP

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• I do hereby declare and state as follows: -

• I will faithfully, truly and to the best of my skills and ability, execute and perform the duties required of me as an employee of DATAMARK INDIA BPO LLP a company registered under the companies Act, 1956 and having its registered office at 'Prince Info Park', Block-A, 6th Floor, Plot No.81-B, 2nd Main Road, Ambattur Industrial Estate, Ambattur, Chennai, Chennai, Tamil Nadu, 600058, India.

• To keep strictly confidential all information of whatever nature provided to me by DATAMARK INDIA BPO LLP or generated as a result of any Work carried out by me or which otherwise becomes known to me in the performance of my engagement with DATAMARK INDIA BPO LLP including without limitation, information relating to DATAMARK INDIA BPO LLP Customers, Suppliers or any person associated with DATAMARK INDIA BPO LLP its terms of business, financial, sales and marketing information, legal advice & letters passwords, codes, business systems, Software, data, Plans and specifications and other technical information ("the Information").

• The information may be marked with words indicating its confidential nature such as "DATAMARK INDIA BPO LLP Confidence" and "DATAMARK INDIA BPO LLP Strictest Confidence". If I have any doubts thereto, I shall always ask my immediate superior who can inform and aware me about DATAMARK INDIA BPO LLP Security Policy and codes of practice as to how to handle confidential information and security marking.

• To ensure (in particular and without Limitation) that all information relating to customers is safeguarded at all times and that no disclosure customer information occur. I may only access or disclose customer information when in receipt of the consent from the appropriate authority and only when absolutely necessary, but in no event without informing the appropriate authority.

• I will not retain or duplicate any copies of information or disclose any information to any third party without the prior written consent of DATAMARK INDIA BPO LLP.

• As a condition of my employment or engagement with DATAMARK INDIA BPO LLP I am reminded that unauthorized access to computer systems or databases, unauthorized processing, Transfer or removal of data by any means except as instructed by appropriate authority from DATAMARK INDIA BPO LLP can be regarded as a crime, civil and /or criminal. Consequently, if I were found committing or making any attempt to commit such a crime would be referred for prosecution by DATAMARK INDIA BPO LLP.

• To duly comply with all appropriate and prevailing laws of the land whilst handling or processing any customer or personal data. It is informed to me that my immediate superior / manager can advise me and help me in complying with the prevailing laws. However, if I fail to comply with the same, even after receiving such advice, I shall be entirely and solely responsible for any consequences, which may be suffered by me.

• By this letter assign to DATAMARK INDIA BPO LLP all rights, title and interest in and to all copyright in all computer programs, writings, documents, reports and other work make or written by me in the performance of my engagement with DATAMARK INDIA BPO LLP. All inventions, discoveries, developments and improvements made or conceived in the performance of my Prince Info Park, Block-A, 6th Floor, Plot No.81-B, 2nd Main Road, Ambattur Industrial Estate, Ambattur Chennai 600058, Tamil Nadu, India || Voice: +91(44) 4206 0206 | LLPIN: AAG – 0425 | www.datamark.net Page No. 5

• engagement with DATAMARK INDIA BPO LLP ("inventions"), whether IPR protected or not, shall become and remain the sole and exclusive property of DATAMARK INDIA BPO LLP.

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