

#### **FYP**

#### **Final Year Projects**

Distinguished FYPs

#### **Ideas for Students**

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Supervisor	Title	Brief Description
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Final Year Projects >		

## Ideas for Students

CS faculty is invited to share ideas for students interested in FYP by sending all information to secretary as per below format.

# Following are links to already completed FYP's by students of CS & SE at CUI Lahore Campus

http://dspace.cuilahore.edu.pk/xmlui/handle/123456789/1343 (Downloadable FYP Reports)

https://cuonline.cuilahore.edu.pk/lims/Forms/SearchThesis.aspx (Provides Access Number to stored FYP CD's at CUI Lahore Campus Library)

### **Dear Students:**

- 1. Below ideas are intellectual property of their supervisors (see Supervisor column in below table). If you want to work on an idea, you must choose the same supervisor who proposed the idea. If for some reason, you want to work with some other supervisor on same idea, you must get written permission from the original supervisor. Otherwise, strict action would be taken against you.
- 2. Projects are listed below by date in descening order i.e. most recently sent project ideas are at top.
- 3. Some of the below projects are not available for supervision. They are here for record and to help you avoid repetition of ideas. So, do not contact those supervisors, because the projects are already taken. See column: Available for Supervision

Muhammad Farhan	Quranic calligraphy recognition and its AR based graphical description	This project proposes a camera based application that can detect the Quranic text of the short Surahs of Quran (mainly the last 14) and presents an augmented reality based video description. Many a times the reciter of the Quran	Pattern Recognition/ Machine Learning	Machine Learning/Go od Programmin g skills	Research & Developmen t	Yes

Supervisor		Title			<b>Brief Descr</b>	iption
Sort		Sort			Sort	
		or transliteratio n and wants to be aware of the meanings or context. There are many applications that provide excessive knowledge and information related to the Quran, usually in the form of audio or text based Tafseers, however there is much need for an application that can directly detect the surah and provide a graphical video based description of the surah. The video description might include animated video presenting the translation as well as a short tafseer in the form of graphical stories.				
Muhammad Farhan	Online- Assessment proctoring	This project will focus on the need to develop a web based application that can monitor the activities of students during an online assessment.	Computer Vision/Video analysis	Good Programmin g skills	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		that helps to achieve the most accurate results. Video data from webcam as well as the screenshots after a fixed interval of time in milliseconds would be analyzed to track the Eye Gaze of the user for an efficient suspicion detection. Also the lips would be monitored for talking detection. The application would keep record of all the suspicious activities during the course of online assessment for each student in a database.				
Dr.Salman Khan	Scalable Automated Assessment System for Programmin g Assignments	In our newly completed project, we need final year students to incorporate cheaper scalable solution that can support the automated assessment of hundreds of students. For this purpose we require smart algorithms and	web development /software engineering	Good programmin g skills	Research & Developmen t	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		developed by using service oriented architecture where each module operates as independent service. After completing this project, we aim to deploy this system in our own department and another public sector university.				
Humaira Afzal	Game based learning	Unified Modelling Language (UML) has become the standard language for the design and analysis of object- oriented software concepts. Number of tools are available that support design with UML, But they only provide the facility to draw UML diagrams and generate code from the UML model. So far no tool provides the environment to learn different concepts of UML. Exploration games are also introduced to guide the software	Game Developmen t	Good programmin g skills	Research & Developmen t	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
	s. But they	
	are not	
	provided the	
	step by step	
	learning of different	
	αιπετεπτ UML	
	diagrams.	
	The aim of	
	this project	
	is to develop	
	the concepts	
	of UML by	
	providing the	
	learning	
	environment	
	. We are	
	going to	
	develop an	
	educational	
	application	
	called "UML	
	guide for beginners".	
	The	
	application	
	will make	
	the	
	developer	
	learn the	
	basics and	
	cores of	
	Unified	
	Modelling	
	Language.	
	To maintain	
	the interest	
	of	
	user/develop er we will be	
	using	
	gamification	
	approach	
	(use of	
	game	
	elements for	
	educational	
	purpose).	
	This	
	gamified	
	experience	
	will have	
	perpetual	
	impact on	
	the	
	user/develop er. In this	
	way we	
	believe that	
	the	
	modelling	
	deficiencies	
	will be	

raised above

Supervisor	Title			Brief Descr	iption
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Afzal Site	could be similar to OLX or Daraz but the extra feature could be video calling. To create a mobile application which will aid in the selling and buying of items online. The main aim of the application is to build is to try and reduce the number of items being returned to help increase business revenue. By integrating videocall into buying and purchasing allows the customer to see the product before coming into physical contact with the product. This will remove any doubt when buying as the customer is 100% sure that the product is what they intend it to be and of satisfactory	Developmen t	programmin g skills and Database	t (Application)	
Humaira e-Learning Afzal platform	In this project, you will build a sharable e-	Web Developmen t	Good programmin g skills and Database	Developmen t (Application)	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
	powered by	
	cloud	
	computing	
	would allow	
	the	
	independent	
	Learning	
	Managemen	
	t Systems	
	(LMS) embedded	
	in various e-	
	Learning standards to	
	share their	
	learning	
	objects,	
	modules,	
	and content.	
	Basically,	
	cloud	
	computing	
	will	
	encourage	
	the sharing	
	of a wide	
	range of	
	learning	
	objects,	
	allowing	
	learners to	
	access them	
	online easily.	
	The project	
	has a three-	
	layer	
	architecture	
	to facilitate	
	sharing	
	learning	
	modules,	
	reusing	
	them, and	
	interoperabili	
	ty among	
	different	
	learning	
	content	
	efficiently.	
	The middle	
	layer of the	
	infrastructur	
	e contains	
	an indexing	
	module and	
	a metadata	
	transformati	
	on module	
	to	
	encourage	
	the	
	exchange of	
	metadata	

among

Supervisor		Title			<b>Brief Description</b>
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Afzal		items platform of premium items such as electronics (there are rarely any of these present). Olx etc etc are there but they are for sale and not for rental purposes.	Developmen t	programmin g skills and Database	t (Application)
Humaira Afzal	Android task monitoring	This project is exclusively designed to simplify the tracking and monitoring of day-to-day activities of the busy modern life. We are so busy in our daily lives right now that it becomes impossible to keep track of our daily events, meetings, and appointment s. To address this issue, this project focuses on developing a Weekly Task Alerting System for Android devices that can alert users of the tasks/appoin tments that are scheduled for each day in a week. The project is primarily a reminder app	Android Developmen t	Good programmin g skills	Developmen Yes t (Application)

Supervisor	Title			Brief Description
Sort	Sort			Sort
	that are due daily. Users can use this application to set goals and achieve them, thereby increasing productivity and simplifying their lives.			
Humaira Afzal	A premium quality freelance marketplace made specifically for Pakistani freelancers, that hires only a certain set of experts based on a recruitment process (involves live interview, some assessment s, etc). The platform services favours freelancers since they the platform service percentage cut would be anywhere between 5-10% (half of what it is currently), better financial rewards since only a quality set is being recruited. On the other hand, buyers would also benefit since they get the top-notch talent in a marketplace	Web Developmen t	Good programmin g skills and Database	Developmen Yes t (Application)

Sort available
available
ones.

Supervisor		Title			Brief Desc	ription
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SOIT		communicati on between diabetic patient and the hospital or clinicia introduced which give understandi ng of matching the m- health and Internet of things with respect to their functionalitie s in the advance applications of fourth generation. We are aiming towards the connectivity and managemen t of heterogeneo us devices from perspective of healthcare in mobile network. This technology makes able the route of communicati on between patient and hospital			SUIT	
Sheeza Zaheer	LearnTogeth	This idea focuses on developing an application in which short animated videos will be made for teaching childrens the basic moral of life. e.g. to start eating with BISMILLAH. There will	Android Developmen t, Computer Graphics	Good Programmin g Skills, Graphic Design	Research	Yes

Supervisor	Title			Brief Descr	iption
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	developing an application in which child specialists and nutritionists are added on a single platform. Parents from all around the world contact them and get guidance from them. Further, there will be a community garage where all parents can share their innovative ideas that they have practiced with their children or can ask general questions. Parents can also share videos of their childrens doing some innovative work.	t	g Skills, Database	(Application)	
Sana 1. Visual Maqbool Analysis of Author Impacts a Bibliomet Data	visual and analysis of	Artificial Intelligence	Knowledge of Artificial Intelligence, SE & Database	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		find and define notable publications, to draw a number of different conclusions, such as how much impact an author has had in a given field. To do this we use information visualization techniques. Information Visualization is a field of science about increasing insight and understanding of raw data. It does this by researching on details of human cognition and perception and how data itself is modelled, and by categorizing and developing new ways to encode and interact with data visually.				
Sana Maqbool	2. A Roadmap for Usability and User Experience Measureme nt During Early Phases of Web Applications Developmen t	Web usability and User Experience (UX) play a vital role in the success and failure of web applications. However, the usability and UX measureme nt during the software	Web Developmen t	SE, Project Managemen t	Developmen t (Application)	Yes

Supervisor		Title			<b>Brief Description</b>	
Sort		Sort			Sort	
		usability and user experience evaluation and measureme nt methods and the defined measures as well as their applicability during the software development life cycle.				
Iqra Obaid	Gamification for Job training Chalanges	The recruitment, engagement , and training of the employees are among the core and critical roles for running an organization successfully. Gamification has been proven to be a promising tool that offers many innovative solutions for various domains. The traditional recruitment process includes job advertiseme nt, resume submission, test conduction, and interview conduction. These conventional methods of recruitment have helped to predict job performance to some extent but	Game Developmen t	Game Developmen t	Developmen Yes t (Application)	

Supervisor		Title			Brief Descr	iption
Sort		gamified job training or employee engagement application should be developed to help the organization s.			Sort	
Dr. Muhammad Tayyab Chaudhry	Smart IoT Devices	These projects are related to creation of smart/intellig ent devices for IoTs. For further details and discussion, please contact Dr. M. Tayyab Ch, at Room 122 PhD block, CUI Lahore, or email to tayyabch@c uilahore.edu .pk	Artificial Intelligence, Databases, Web Technologie s, (optional) Arduino/Ras pberry.pi knowledge	Artificial Intelligence, Databases, Web Technologie s, (optional) Arduino/Ras pberry.pi knowledge Only CGPA 3.0 or above required, the students will must have to make the prototypes during FYP1.	Research & Developmen t	Yes
Nadeem Ghafoor Chaudhry	A multimedia based Seerat-UN- Nabi website	It is an unfortunate reality that the habit of book reading is dying a fast death. Forget about ordinary people, university students try to avoid reading textbooks and want to watch video lectures instead. This means that books on Seerat-UN-Nabi, i.e life of Hazrat Muhammad are also not going to be read as much as they should	Web Developmen t	Good Programmin g Skills	Developmen t (Application)	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
	Muhammad	

響 is extremely important. He is our role model and we are supposed to live our lives based upon his life. But how can we do that if we are not fully aware about his life? It is not only us Muslims, who need to know about his life, but non-Muslims who are curious about him also need to know. Here is a very interesting and very short video https://www. youtube.com /watch? v=L1pfyiM5-Gk about the impact one line, by Allama Iqbal, had on a New York City based professor. The line was "Sure you can deny God, but how do you deny Muhammad 響? " In order to present life of Hazrat Muhammad s to the people of present world we need to employ methods of present world. It is

Supervisor	• 	Title			Brief Descr	iption
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		based Seerat-UN-Nabi website". This will be a multi- lingual interactive website on which each day of the life of Hazrat Muhammad will be presented in a chronologica l order. When the user clicks on a day he/she will be presented all the important details of that day from Seerat- UN-Nabi point of view. For example if the user clicks on 17th of Ramadan in the second year of Hijrah he/she will be presented all the details of Battle of Badr with maps, images etc of Badr.				
Mr. Imran Raza	An Intelligent Brain Computer Interfacing (BCI) based personalized healthcare system for neuro- rehabilitation	Brain-Computer Interfaces (BCIs) is a rapidly evolving field that seeks direct interaction between the human brain and machines. In this project,	Machine Learning , Computer Networks	Strong OOP concepts ,Data Structures/D atabases , Knowledge of Machine Learning , Knowledge of Computer Networks	Research & Developmen t	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		System for Neurorehabil itation for people living with disabilities which can act as an auxiliary control to operate other devices to perform activities of daily livings (ADLs) e.g. robotic wheelchairs, tilt / recline hospital beds, remotecontrols for TV, keyboards for PCs, smartphone s/tablets, and videogame controllers. Interested				
Nadeem Ghafoor Chaudhry	Learning Managemen t System (LMS) for Madaris of Pakistan	I have been running a project for teaching software development to madrissa students for last four years. The details are available at www.isdp.inf o There are several reasons for which I want to change the current single location, one year mode to a distributed three year mode. I can explain the details on a one to one meeting but	Software Engineering	Good programmin g skills	Developmen t (Application)	Yes

Supervisor		Title			<b>Brief Descr</b>	iption
Sort		to help me manage this distributed mode of education. I will pay Rs 10,000 ( Ten thousand ) to the group if I get a well-documented , debugged, production quality product by December 1st, 2021. Feel free to contact me via email.			Sort	
Fareeha	Student Faculty Document Sharing Android Project	This project is an online portal between students and faculty. This innovative system allows college faculty to share important data as well as notifications with engineering students. It consists of a faculty login along with student login. Since college faculty operates through pc and document uploading is simpler through a pc, the faculty login is to be performed through a computer. Faculty may upload	Web/Androi d Developmen t	Good programmin g skills and Database	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		through their provided login. The documents are uploaded by faculty to different corresponding departments. We propose to build this system on an online server that allows faculty to upload data and students may view search and download required documents through their android device. Here students only see and download data of their particular semester. Rest data is hidden. Faculty may access and upload/edit documents to any semester or add any notice as desired.				
Fareeha Iftikhar	Android Attendance System Using RFID	Nowadays, parents are worried about their children because of the high rate of kidnapping. So, it is the responsibilit y for the school to take care of their students and they also	Android Developmen t	Good programmin g skills and Database	Developmen t (Application)	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort

if the students are not at the school at school start time. This System ensures safety of the students by making their parents aware about the various important status about their students like in-time, outtime, everything about their arrival. By using RFID technology, it is easy to track student hence enhances the security and safety in selected zone. The information about student such as in time and out time from Bus and campus will be recorded to web based system and SMS will be automaticall y sent to their parents that the student arrived to Bus/Campus safely. SMS will be sent to parents whose children are absent without taking leave. The parents can log into android application

Supervisor	Title			Brief Description
Sort	on of School Security System via RFID to avoid crime, illegal activates by students and reduce worries among parents.			Sort
Fareeha Android Iftikhar Women Safety App	Women's safety is a big concern which has been the most important topic till date. Women safety matters a lot whether at home, outside the home or working place. Although the government is taking necessary measures for their safety, still, there are free safety apps for women that can help them to stay safe. Most of the females these days carry their smartphone with them, so it is necessary to have at least one the personal safety apps installed. Such a security app for ladies will definitely facilitate in a way or the opposite.	Web/Androi d Developmen t Good programmin g skills and Database	Developmen t (Application)	Developmen t (Application)

Supervisor	r	Title			Brief Descr	iption
Sort		Sort			Sort	
		has installed it in their smart phones. Our intention is to provide you with fastest and simplest way to contact your nearest help. In this system user needs to feed three contact numbers, in case of emergency on moving the phone up and down thrice, the system sends SMS and calls on one of the numbers feeded into the system with the location. The phone starts ringing. This features for both everyday safety and real emergencies , making it an ultimate tool for all.				
Fareeha Iftikhar	Daily Route Planner	Many people own small business, where they drive car from one point to many. For drivers of any kind where they are about to deliver any parcels or to use a direction, they can use	Web/Androi d Developmen t	Good programmin g skills and Database	Developmen t (Application)	Yes

Supervisor		Title			<b>Brief Descr</b>	iption
Sort		Sort			Sort	
		decision on				
		what they				
		should				
		follow. This				
		makes road trip easier				
		and faster.				
		This route				
		optimization				
		application				
		will navigate				
		your entire				
		route in stop				
		by stop				
		sequence,				
		from start to				
		end. With this route				
		optimizer				
		application,				
		travelling				
		time can be				
		saved and				
		many places				
		can be				
		visited on				
		the planned				
		day. This				
		android application				
		can plan				
		route for a				
		road trip				
		including all				
		stops and				
		make the				
		trip easier				
		and				
		smoother. It				
		can help				
		with				
		roundtrips which will				
		last more				
		than a day.				
		Also, it will				
		help any				
		person to				
		analyses in				
		decision				
		making with				
		how many				
		places				
		he/she can				
		visit in total				
		with multiple stops within				
		a time				
		frame.				
areeha	Smart Home	A home	Android	Good	Developmen	Yes
ftikhar	Automation	automation system will	Developmen t	programmin	t	
	system using			g skills,	(Application)	

Supervisor		Title			Brief Descr	iption
Sort		It may also include home security such as access control and alarm systems. A home automation system typically connects controlled devices to a central hub or "gateway". The idea is to control all the devices and appliances using android app.			Sort	
Ms. Mamoona Tasadduq	VirtualBookS tore	When it comes to find a specific book then we need to search many book shops. This process not only costs towards travelling and time but is also much stressing sometimes. Hence, the idea behind this app is to connect all the data of book stores in your city/town. The application will also provide the nearest possible options based on your current location from where the	Web/Androi d Developmen t	Good programmin g skills and Database	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		be used by the service provider to supply online books based on the connected database.				
Ms. Mamoona Tasadduq	e-Parking Challan	The main idea behind this project is to develop an app that can be used by the traffic police in case of wrong parking. Most of the times the car owners park their cars at wrong places and disappear for quite a long time. Whenever, a car is wrongly parked, the police instead of waiting for the owner, can take an image of the car and its license plate from their mobile phones. They will post the pictures into a central database from where the car owner will be fined and get an auto generated SMS for the details of its fine. This app would also provide to make available the violation	Android Developmen t	Good programmin g skills, Database, Computer Graphics	Developmen t (Application)	Yes

Supervisor	Title		Brief Description
Sort	Sort		Sort
	e-payment or can be added into the annual tax of the car.		
Dr. Zulfiqar SEHAT Habib		E- Nil Healthcare	Research & Yes Developmen t

Supervisor	Title	Brief Description
Sort	Sort	Sort
	population	

and common use of cell phones, motivate for the development of an online health care system. Existing ehealthcare systems are mostly informal and do not provide complete solution, therefore could not get popularity despite some of these were launched above two years ago. A mega project **SEHAT** (Smart & **Economical** Healthcare using Advanced Technology) is being developed to provide a remote end to end health care services. This is being completed in several phases of research and development in the domain of artificial intelligence, machine learning, cyber security, mobile & web applications, and big data

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		areas will				
		especially				
		benefit from				
		treatment at				
		home and its				
		inexpensive cost.				
		Doctors will				
		be able to				
		look into the				
		history of				
		patients and				
		treat				
		accordingly.				
		Data of				
		patients will be utilized				
		for the				
		monitoring				
		and				
		prediction of				
		diseases.				
		Radiologists				
		will be				
		assisted				
		through				
		enhanceme nt and auto				
		diagnosis of				
		medical				
		images.				
		Medical				
		insurance				
		companies,				
		medical				
		laboratories,				
		pharmaceuti cal				
		can				
		and medical				
		representati				
		ves can				
		easily				
		market their				
		products				
		and provide				
		services				
		through this				
		system. Your FYP will be				
		the part of				
		SEHAT to				
		solve at				
		least one of				
		the major				
		challenges				
		being faced				
		for its real				
		practical				
		application.				
Dr. Zulfiqar	Brain tumor	In	VIG-	Digital	Research &	Yes
Habib	diagnosis	collaboration	Robotics,	Image	Developmen	
		with	http://vig.cuil	Processing	t	

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
Dr. Zulfiqar Habib	Traffic Managemen t System (TMS)	In collaboration with Punjab Safe City Authority	VIG- Robotics, http://vig.cuil ahore.edu.p k	Digital Image Processing or Computer Vision	Research & Developmen t	No
Shaina Ashraf	Celebrity Profiling Corpus and techniques	Celebrities are among the most prolific users of social media, promoting their personas and rallying followers. This activity is closely tied to genuine writing samples, rendering them worthy research subjects in many respects, not least author profiling. The Celebrity Profiling task is to predict different traits of a celebrity from their social media communicati on. The traits are the degree of fame, occupation, age, and gender. The social media communicati on is given as the teaser messages from past tweets. The goal is to develop a piece of software which predicts celebrity traits from	Natural Language processing, Machine learning, Data science	Good programmin g skills	Research	Yes

		Title			Brief Descr	iption
Sort		generated by collecting tweets from individual profiles.			Sort	
Mamoona Tasadduq	Public News Droid	Public News Droid is an Advanced and Informative System helping the users to know the news, articles or any interesting things happening around their Locality. This System helps the local public to keep themselves up to date about the happenings around their vicinity or locality or in their City.	Databases - Web development	Developmen t	Developmen t (Application)	Yes
or. M. ayyab Ch.	Fake Profile Identification on Social Media	For details, please come for discussion	Web Programmin g	Java, Database Systems	Developmen t (Application)	Yes
Humera Niaz	Farming Assistant Web Service	A Web project to help farmers ensure greater profitability through direct farmer to supplier and farmer to farmer communicati on. This innovative site allows	A Web project to help farmers ensure greater profitability through direct farmer to supplier and farmer to farmer communicati on. This innovative site allows for good	Good programmin g and database concepts	Developmen t (Application)	Yes
		for good farmer, retailer and supplier communicati on.	farmer, retailer and supplier communicati on.			

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		timing, ¬¬so user may not find his friends online when he logins to the particular social networking website. To overcome this issue proposed system will bring together our online friends on different social networking sites into a single integrated environment .				
Humera Niaz	Android Based Parking Booking System	It provides customers an easy way of reserving a parking space online. It overcomes the problem of finding a parking space in commercial areas that unnecessary consumes time.	Web Developmen t, Android Application	Good programmin g and database concepts	Developmen t (Application)	Yes
Humera Niaz	Online Election System	Online Election System would have Candidate registration, document verification, auto- generated User ID and pass for candidate and Voters. Admin Login which will be handled by Election	Web Developmen t, Data Base	Good programmin g and database concepts	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
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		Voters will get Unique ID and Password, Using which they can vote for a Candidate only once per Election				
Ms. Kanza Hamid	Doctors on Hand	Main idea of this project is to make a hand held application through which patient do not further need to go doctor to doctor to find who is expert and can treat your disease. This application will find itself a most suitable/expert and nearest doctor according to your disease.	Natural Language Processing	Good programmin g skills.	Developmen t (Application)	Yes
Ms. Kanza Hamid	A Liar Robot	Robots always tell us for what they are programmed / they always tell us the truth. But the idea of this project is to make an intelligent robot which can tells a lie as human do, so mimicking pure human behaviour.	Intelligent Machines and Robotics	Strong Programmin g skills with hardware level knowledge/ interested in learning, good in assembly language.	Research & Developmen t	Yes
Sara Muneeb	Interactive Game to	According to the latest WHO data	Game Developmen t, Data	Android Developmen t, Database,	Research & Developmen t	Yes

Supervisor	Title		Brief Description
Sort	Sort		Sort
	reached		
	27,081 or		
	2.22% of		
	total deaths.		
	The age		
	adjusted		
	Death Rate		
	is 15.42 per		
	100,000 of		
	population ranks		
	ranks Pakistan		
	#104 in the		
	world.		
	People get		
	their driving		
	license just		
	by		
	knowledge		
	of driving.		
	However,		
	traffic rules		
	are also		
	important		
	and majority		
	drivers do		
	not know all		
	sign and		
	rules on		
	roads. Road		
	traffic		
	injuries is		
	growing issue. Main		
	causes		
	which are		
	found		
	behind these		
	road		
	accidents		
	are lack of		
	training		
	institutes,		
	unskilled		
	drivers.This		
	game will		
	help them		
	learning		
	driving rules		
	in an interactive		
	way and they will		
	remember		
	them for a		
	long time. All		
	rules are		
	available in		
	online book		
	given by		
	traffic police.		
	polico.		

Distributed

Android

Developmen Yes

Dr.

Vehicular

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
Sara Muneeb	Batch Advisory	This will be an online portal to help batch advisors. With this portal batch advisor will be able to decide if a student is capable of selecting the course he wants to opt for. This portal will minimize the time and workload spent in looking students schedule, class, clashes, prerequisite, ability to pick a course.	Web development , Database	Database and programmin g concepts for frontend and backend	Developmen t (Application)	Yes
Nadeem Ghafoor Chaudhry	Urdu Based Medicine Compliance Application	According to the International Society for Pharmacoec onomics and Outcome Research (ISPOR), adherence is "the extent to which a patient acts in accordance with the prescribed interval, and dose of a dosing regimen. [1]"Medication nonadheren ce can affect patient health adversely, negatively impact a patient's relationship with his/her	Android Application Developmen t	Good programmin g capability in Java	Developmen t (Application)	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
increace		

increase health resource consumption [2,3]. Medication nonadheren ce remains a common health care problem. Poor adherence causes approximatel y 33% to 69% of medicationrelated hospitalizati ons and accounts for \$100 billion in annual health care costs[4] Several application are available to provide help in this matter. Some example are PatientPartn http://mypati entpartner.c om/#theapp Medisafe http://www.m edisafeproje ct.com/ Dosecast http://www.m ontunosoftw are.com/pro ducts/dosec ast/about/ The problem is that these are English based applications where as majority of our population does not understand English. We need a similar application,

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		Medication				
		compliance				
		and persistence:				
		terminology				
		and				
		definitions.				
		Value				
		Health. 2008;11(1):4				
		4–47.				
		[PubMed] 2.				
		Ruddy K,				
		Mayer E,				
		Partridge A. Patient				
		adherence				
		and				
		persistence				
		with oral				
		anticancer treatment.				
		CA Cancer J				
		Clin.				
		2009;59(1):5				
		6–66.				
		[PubMed] 3. Waterhouse				
		DM,				
		Calzone KA,				
		Mele C,				
		Brenner DE. Adherence				
		to oral				
		tamoxifen: a				
		comparison				
		of patient				
		self-report,				
		pill counts, and				
		microelectro				
		nic				
		monitoring. J				
		Clin Oncol.				
		1993;11(6):1 189–1197.				
		[PubMed] 4.				
		Osterberg L,				
		Blaschke T.				
		Adherence to				
		เo medication.				
		N Engl J				
		Med.				
		2005;353(5):				
		487–497. [PubMed]				
Dr. Faizan	Sentiment	Social media		Skilled in	Research &	Yes
Ahmad	Analysis of	applications	Application	Java/Androi	Developmen	
	Facebook Users: A	extremely	Developmen t	d and	t	
	Software	reflect upon people	t	Databases. • Willing to		

Supervisor	r	Title			Brief Descr	iption
Sort		Sort			Sort	
OUIL		identify the harmful factors that need to be eliminated as well as suggestion system can be proposed. Our emphasis will be to build an application for fetching data of Facebook by using Graph API, analyze the trend of data, and later offer a complete system that will be built based on the theory of Statistics, Al and Human-Computer Interaction. Contact: Faculty Block Room 184 or email AT faizanahmad @ciitlahore. edu.pk		Excellent English writing skills.	JUIL	
Dr. Faizan Ahmad	Autism Rehabilitatio n System	It is now established that the assessment, as well as rehabilitation of human cognition, is possible through brain games. A huge number of population is suffering from autism around the globe. Few games have already been made in this	Unity Game Developmen t	• Skilled in Java/C# and Databases. • Willing to learn Unity3D along with other new frameworks. • Willing to explore research literature. • Excellent English writing skills. • Have vast experience/s ense of gaming (i.e. necessary to design game		Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		emphasis will be to analyze the existing research literature to understand where this domain currently stands, and offer a complete system that will be built based on the theory of psychology and Human- Computer Interaction. Contact: Faculty Block Room 184 or email AT faizanahmad @ciitlahore. edu.pk				
Dr. Faizan Ahmad	Intelligent Gestures- oriented Smart Devices Operability System	With the increase of features in smartphone devices its usability is getting complex. An efficient designing of widgets already addressed the issue to a certain extent, however, in the presence of mobile sensors it can be further improved. Using important features of smartphone s through gestures recently got attention, however, seeking out	Android Application Developmen t	Skilled in Java/Androi d and Databases.       Willing to learn new frameworks.       Willing to explore research literature.       Excellent English writing skills.	Research & Developmen t	Yes

Supervisor		Title			Brief Descr	iption
Sort		their recognition is still a challenge. Our emphasis will be to analyze the existing research literature to understand where this domain currently stands, and offer a complete system that will be built based on the theory of AI and Human-Computer Interaction.			Sort	
Dr. Faizan Ahmad	Elderly Care and Monitoring System	There already exist several elderly care systems, however, they offer assistance with certain limitations in terms of features as well as operability that eventually effects the adaptability of the target audience. Our emphasis will be to analyze the existing research literature to understand where this domain currently stands, and offer a complete system that will be built based on	Android Application Developmen t	Skilled in Java/Android and Databases.       Willing to learn new frameworks.       Willing to explore research literature.       Excellent English writing skills.	Research & Developmen t	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		Faculty Block Room 184 or email AT faizanahmad @ciitlahore. edu.pk				
Sara Muneeb	Online Web Portal to submit, review and composition of CJIF (COMSATS Journal of Islamic Finance)	Online portal will be mainly capable of • Taking submissions of article submitted by authors according to a specific format. • Sending Article for blind peer review to reviews • Sending article to proof readers for proof readers for proof reading • Getting response from reviews and proofreader • Serving all the roles in the submission process i.e. author, reviews, proof reader and editor. • Auto generating emails and timelines for each role • Auto generating of final version of journal	Web development , Database, HCI	Good programmin g and database concepts	Developmen t (Application)	Yes
Sara Muneeb	PROLINK	Purpose of this app is to create links between properties agents inter or intra offices.	Mobile App development , Database	Database and Android development programmin g concepts, CGPA Above 3.3	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		they are				
		working on				
		for selling,				
		buying or				
		rent out.				
		Boss of the office will				
		create an				
		admin				
		account for				
		one office				
		and rest of				
		dealer in				
		that office				
		will use that				
		application as users				
		created by				
		admin.				
		Property				
		uploaded by				
		single user				
		can be seen				
		by other				
		dealers of				
		that office as well. For				
		example if a				
		dealer want				
		to sell a				
		house and				
		he uploads				
		data of that				
		house.				
		Another dealer who				
		has a client				
		who wants				
		to buy a				
		house, he				
		will search if				
		a house is				
		available via				
		app and will				
		contact the dealer who				
		is selling				
		house. This				
		will save the				
		effort the				
		spent on				
		making				
		phone calls				
		to all and				
		searching in				
		long queued				
		messages in WhatsApp				
		groups etc.				
Sara Muneeb	BANADO	This is an online web	Web development	Database and	Developmen t	Yes
		portal which	, Database	programmin	(Application)	

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		brick				
		makers,				
		cement				
		sellers,				
		electric and				
		sanitary				
		merchandise				
		rs. Property				
		agents will				
		be able to				
		contact with each other				
		directly by				
		sending or				
		receiving				
		notifications				
		of recent				
		properties				
		they want to				
		sell, buy or				
		rent out in				
		any				
		particular				
		area.				
		Individuals				
		will be able				
		to see who				
		is selling material in				
		low cost or				
		giving less				
		expensive				
		and trusted				
		services and				
		from where				
		they need to				
		buy bricks,				
		cement and				
		other				
		material				
		during				
		house				
		building				
		depending				
		upon cost and extra				
		services				
		they provide.				
		<b>3</b> 1				
Mica Iara	C bridge	Cuatam	Mob boood	Cood	Doggarah	Vac
Miss Iqra Obaid	E bridge	System which mainly	Web based Application/	Good	Research	Yes
Juaiu		helps to	Application/ Android	programmin g and		
		improve	Application	database		
		communicati	. 4-110011011	concepts		
		on between		I- • <del>-</del>		
		Teacher and				
		Student.				
Miss Iqra	Lost and	Web based	Web based	Good	Developmen	Yes
Obaid	Found	Lost and	Application/	programmin	t	.00
	Managemen	Found	Android	g and	(Application)	
				-	(	
	t System	managemen	Application	database		

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		lost items.				
Miss Iqra Obaid	Time Table Managemen t	The problem is to design and implement a web based application to create a semester course time table by assigning time slots and rooms to a given set of courses under given constraints like avoiding clashes of timeslots and rooms assigning proper rooms and appropriate slots and contact hours etc	Web based Application	Good programmin g and database concepts	Developmen t (Application)	Yes
Miss Iqra Obaid	Bandwidth aggregated Web browser	The explosive increase in data demand coupled with the rapid deployment of various wireless access technologies have led to the increase of number of multi-homed or multi-interface enabled devices. Simultaneou sly leveraging these interfaces by potentially aggregating their bandwidths can lead to higher throughput,	Desktop Application	Good programmin g and database concepts	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	ription
Supervisor		Recently the software designed for the bandwidth aggregation, work both on the server as well as client side i.e. they don't work unless the software is installed on the server side. Our aim is to design a bandwidth aggregated web browser which is independent of server side segmentatio			Brief Descri	iption
Dr.	Home/Office	n i.e. no work is required to be completed on server side.	Distributed	Android	Research &	Yes
Muhammad Tayyab Chaudhry	Electricity Monitoring		Systems, Android Programmin g	programmin g, Hardware knowledge of mobile phone and electricity boards, Arduino/Ras pberry pi programmin g	Developmen t	
Dr. Muhammad Tayyab Chaudhry	Soil moisture monitoring System		Distributed Systems, Android Programmin g	Android programmin g, ability to integrate arduino/rasp berry-pi board with senors and Android phone	Research & Developmen t	Yes
Dr. Muhammad Tayyab Chaudhry	Car Automation and Control		Distributed Systems, Android programmin g, computer	Android programmin g, Hardware knowledge of mobile	Research & Developmen t	Yes

Supervisor		Title		<b>Brief Description</b>
Sort		Sort	Ų	Sort
Muhammad Bilal Arshad	Homeopathy Expert System	Homeopathy is very popular medicine as it has very few or side effects. The medicine is suggested or advised based on identification of certain symptoms. Idea is to build an expert system for homeopathy doctors that could suggest medicine after careful analysis of the symptoms entered by the physician. After suggestion system would learn and keep the record of patients for future consultation.	Web / Mobile Application	Developmen Yes t (Application)
Muhammad Bilal Arshad	Virtual Class Room	Virtual reality is and will be at its boom in coming years. The proposal is to build a proof of concept that could virtualize a class room environment . Utilizing capabilities of Kinect and HTC VIVE or any other VR platform. Student from	Web / Mobile Application	Developmen Yes t (Application)

Supervisor	Title		<b>Brief Description</b>
Sort	Sort		Sort
	room environment and view teacher delivering a lecture in front of them.		
	Aim of this web and mobile platform is to provide companies to register and utilize the system to manage their bus routes and registrations. System will suggest the fastest yet optimal routes to allow maximum passengers( employees/s tudents in case universities) to be accommodat ed in the buses. it would suggest number of buses required on each route designed by the administrator. The system will also updated and share the current location and status of the bus with relative stake holders (company/p arents/relatives)	Web / Mobile Application	Developmen Yes t (Application)
	th and Basic idea of Portal the web and	Web / Mobile	Developmen Yes t

Supervisor		Title			<b>Brief Descr</b>	iption
Sort		Sort			Sort	
		healthy life style. It will include specialized features to generate a healthy activity plan for the week and based on input from nutritionists system will be self capable to generate a healthy customized diet chart for each person registered with the website.				
Ms. Sabeen Amjad	Online Bakery Shop	This online Bakery shop will allow users to check and purchase various bakery products available online. The project will consist of list of bakery products displayed in various categories and the user will browse through the items and will do online shopping. He will do online payment. Thus, the online Bakery shopping project will bring an entire bakery shop online, making it easy for	Web Application/ android Application Developmen t	Good programmin g and database concepts	Developmen t (Application)	Yes

Supervisor	,	Title			Brief Descri	ption
Supervisor		curing his disease by giving the list of fruits and herbs that the user should consume in order to get rid of his disease. This system will help the user to reduce his searching time to a great extent by allowing the user to enter his health problem and search accordingly. This system will also allow the user to online place the order and make online payment for the same. Thus this system will help to cure the user's disease to a great	Application Developmen t	database concepts	Sort	ption
Ms. Shaina Ashraf	E Conference Managemen t System	extent.  The aim of this project is to provide an online submission managemen t system, that streamlines and eases out the collection, tracking and managemen t of electronic submissions . Information can be received, authenticate	Web Application	Good programmin g and database concepts	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
Ms. Shaina Ashraf	Help-Online Help-Online	The aim of HelpOnline is to provide the daily basis services to users at home. Using application users can request for different services. He can view the charges he II have to pay for the services and pay online.he can also give feedback on the services he receives from a particular service provider. our customer can also request for the services of a particular service provider based on his/her trust built from previous experience.	Web Application/ android Application Developmen t	Good programmin g and database concepts	Developmen t (Application)	Yes
Najam-us- Sahar	Mobile Discount Directory	We propose a Mobile Discount Directory with the use of Global Positioning System to find discount, coupons and promotion information, which surround user's current location. Using this application,	Android application development	Programmin g, Database	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
ort		purchase or meals. It brings convenient to users and helps them consume intelligently.			Sort	
Or. M. Tayyab Chaudhry & Or. M. Hassan Iamal	RAID As a Service of Cloud Computing		* Software development * Cloud Computing	* Strong coding skills are required in JAVA, Wed Technologie s and Database Systems *Students with CGPA higher than 2.8 will be preferred.	Developmen t (Application)	Yes
Nadeem Ghafoor Chaudhry	On Road Salaat Planner	This is an Android based application to facilitate people traveling by road over long distances who are careful about their Salaat (prayers). The idea can be explained with an example. Suppose you are going to travel to Islamabad from Lahore via GT Road. You want to plan ahead your stops based upon Salaat time. For this you need to know where will be the closest mosque on your route	Android Application Developmen t	Java Programing	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		needs lot of thought and integration. You have to consider the fact that Salaat times change throughout the year, it needs to integrate with Googlemaps to find out which route the user wants to take etc. It is not that critical on GT Road. But imagine a Muslim family in U.S.A traveling from New York to Florida who is very careful about their Salaat, they will greatly appreciate this application.				
Dr. M. Tayyab Chaudhry	Customer Intention Prediction through Social Media		* Software development .* Natural Language Programmin g (NLP)	* Coding skill in Java and database * NLP basics	Developmen t (Application)	Yes
Dr. M. Tayyab Chaudhry	Personality Identification through Social Media		* Software development . * Natural Language Programmin g (NLP) * Psycology	* Coding skill in Java and database * NLP basics	Developmen t (Application)	Yes
Ms. Sabeen Amjad	Event Hall Managemen t System (EHMS)	EHMS is an events managemen t automation system for a Pakistani banquet hall that helps the banquet hall in the automation	Web Application/ android Application Developmen t	Good programmin g and database concepts	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		managers to run their operations smoothly and also facilitate customers by providing them the required information about booking schedules at their homes. There are multiple systems available but none of them gives the client a full package covering their business requirement s.				
Ms. Sabeen Amjad	Tour Hunting	Tour hunting is a website that is very helpful in the selection of the most appropriate tour for the entertainme nt of the people. It registers different tourism companies which can add their tours details on the website. The visitors of the website can compare different tour packages added by different companies and select a tour. The selection is made on the basis of predefined	Web Application/ android Application Developmen t	Good programmin g and database concepts	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
Dr. M. Tayyab Chaudhry	Software Defined Networking		* Software development .* Networking	* Coding skill in Java and database * Network concepts of TCP/IP stack and Network security	Developmen t (Application)	Yes
Mr. Asif Shahzad	Business Managemen t Information System - BMIS V3	BMIS is general purpose business managemen tapplication. It has Sales, Purchases and Accounts modules developed using Spring MVC and AngularJS. BMIS V3 objective is to add new and improve existing features. Working on BMIS requires exceptional knowledge of Java, OOP, DB, Web MVC and motivation/s kill to learn new technologies fast. 2 group members must be good programmer s.	Web Application Developmen t	Java, RESTful Services, AngularJS, Logic Building	Developmen t (Application)	No
Dr. Muhammad Tayyab Chaudhry	Duplicate Profile Detection		Social Networks	Basic programmin g skills, database, web programmin g, Machine learning	Research & Developmen t	Yes
Dr. Munwar Ali	Selection of cloud based	The project will be	Cloud Computing	Java/C# programmin	Research & Developmen	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort based on his/her security requirement s.			Sort	
Dr. Munwar Ali	Organization al based data categorizatio n in Cloud	The project will use DM to categorize data based on the organization in the cloud. This project will be considered a new subservice of storage service. The cloud will receive the data and will process the data (using DM as the main engine) based on the predefined attributes and will allocate a specific label to the data. Finally, that data will be stored on the proper inner-cloud.	Data Mining, Cloud computing	Knowledge of data mining and Java programmin g	Research & Developmen t	Yes
Dr. Muhammad Tayyab Chaudhry	Big Data based Prediction Service		BigData, Cloud Computing	Configuration  Knowledge for Hadoop/Spa rk, General Programmin g, Web Programmin g, Android Programmin g, Artificial Intelligence	Developmen t (Application)	Yes
Dr. Muhammad Tayyab Chaudhry	Water Pollutant Monitoring through Remote Sensing		Distributed Systems, Android Programmin g	Android programmin g, ability to integrate arduino/rasp berry-pi board with senors and	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort Chaudhry	Monitor/Trai ner	Sort		extraction and analysis, general programmin g skills	Sort	
Dr. M. Tayyab Chaudhry	Accent Trainer		Software development , Cloud Computing, Android Developmen t	Android/Win dows mobile programmin g, Access to microphone and feature extraction from audio multimedia are must. Database System implementati on for audio files and comparison.	Developmen t (Application)	Yes
Dr. M. Tayyab Chaudhry	Tracking as a Service		Distributed Systems, Cloud Computing	Java/C# programmin g Android/Win dows mobile programmin g and access to WiFi and location service Web Service programmin g Internet/Web /Network programmin g Database knowledge	Developmen t (Application)	Yes
Dr. M. Tayyab Chaudhry	Providing video surveillance using mobile phone		Mobile computing, Distributed Systems	Android/Win dows mobile programmin g Access to Camera, Bluetooth, WiFi, Mobile data and location service is a must. Mobile phone capable database programmin g such as for MySQL will be an added advantage.	Developmen t (Application)	Yes
Dr. Adnan	Smart	Internet	Software	software	Research &	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
	user's	skills
	surfing over	
	the web. It	
	includes the	
	control of	
	what can be	
	seen	
	viewed,	
	accessed or	
	published	
	over the	
	web.	
	Internet	
	censorship	
	is applied	
	over the web	
	traffic due to	
	some	
	religious,	
	business or	
	moral	
	reasons.	
	Today	
	internet	
	surfing is	
	becoming an	
	issue which	
	requires	
	great	
	attention of	
	ISPs in	
	almost every	
	part of the	
	world and	
	they are	
	trying to	
	solve these	
	issues by	
	different	
	ways. Some	
	websites are	
	not required	
	in the	
	community	
	and the	
	presence of	
	such	
	websites/blo	
	gs etc. is	
	harmful for	
	the users	
	due to some	
	cultural	
	and/or	
	political	
	reasons.	
	This final	
	year project	
	considers	
	the very	
	problem and	
	proposes a	
	smart	
	internet	

internet

upervisor	Title			Brief Description	on
ort	Sort further			Sort	
	details please visit Dr. Adnan Ahmad in Faculty Block Room 37				
r. Adnan Service hmad Oriented Architecture Implementati on	Over the past few decades, software design architectures have become increasingly complex because of the increasingly complex IT needs of various systems for organization s. Until recently, most of the software design architectures were monolithic. Monolithic architectures of increasingly complex software design usually impose strong restrictions. These restrictions cause many issues; for instance, difficult integration with other software tools, less interoperability and less reusability of various software components. By providing "loose"	Software Engineering	software engineering, algorithms, distributed systems, good programmin g and analytical skills	Research & Yes Developmen t	S

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		e", service- oriented architecture (SOA) is a promising architecture to solve these problems (Endrei et al., 2004). Today, most of the major software vendors such as Microsoft, IBM, Google, are using SOA. In this project, students are expected to develop a system using SOA. The software design, implementati on and integration give them a head start to join the software industry. For further details please visit Dr. Adnan Ahmad in Faculty Block Room 37				
Dr. Adnan Ahmad	Sandboxing	Sandboxing refers to the security mechanism which is used to separate various running programs in the same system. It is normally used to execute untrusted code, so that	Software Engineering	software engineering, algorithms, operating systems, good programmin g and analytical skills	Research & Developmen t	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort

isolated environment only. Let us consider the classic dilemma, where a person has received a file and eager to see what is inside, but at the same time afraid of infecting his system through a virus. One possible solution is to open the file in a controlled environment (sandbox), so even if it is infected, the effect can be localized. Without a proper sandbox mechanism a system always faces threats of viruses and Trojans every time a code executes. This final year project deals with the development of a sandboxing environment and helps students to deeply understand programmin fundamental s, operating systems and access rights. For further details

Supervisor	Title			Brief Descr	iption
Sort	Sort			Sort	
	functions".F or further details please visit Dr. Adnan Ahmad in Faculty Block Room 37.				
Dr. Adnan Secure Ahmad collabora for e- learning system	E-learning is the use of information and communicati on technology (ICT) in education. The process spans over various component including collaboration between teachers and students, which turns out to be a critical success factor. In online courses, it is even more desirable that teachers may collaborate with students effectively to enhance the latter's capabilities. However, it is also quite important to secure that collaboration so that no unauthorize d action may take place. Secure collaboration is important in ensuring that every resource or information	Software Engineering	software engineering, algorithms, good programmin g and analytical skills	Research & Developmen t	Yes

Supervisor	Title			Brief Descri	ption
Sort	Sort			Sort	
	project focuses on the development of a novel collaborative module for e-learning systems and provides the opportunity to the students to improve systems concepts, programming and critical thinking that will help them in industry. For further details please visit Dr. Adnan Ahmad in Faculty Block Room 37.				
Dr. Adnan Ahmad	COAT- Collaborative Outgoing Anti- spamming Technique Te	d d	software engineering, algorithms, good programmin g and analytical skills	Research & Developmen t	Yes

Supervisor		Title			Brief Descri	ption
Sort		Sort			Sort	
		storage and processing resources. This final year project proposes a collaborative outgoing anti-spam technique to reduce the spread of spam on the internet. The technique targets outgoing emails and its use would free the internet from 260 billion spam a day. For further details please visit Dr. Adnan Ahmad in Faculty Block Room 37.				
Dr. Muhammad Salman Khan	A visualization tool for analyzing trends in the field of computer science	This is a HEC funded project. Basically the visualization tool developed in this project will help analysts to evaluate the performance of individuals, organization s, nations, and groups working in the field of computer science. This in turn can be used to know the impact of decisions and policies made for allocating resources and funds,	Communicat ion Networks	Good programmin g skills in Java, computer graphics	Developmen t (Application)	Yes

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		Education Commission (HEC) of Pakistan can take a lot of benefits from the product developed through this project. The developed product through this project will help the students, scholars, and teachers to find collaborators , experts, and supervisors in their field of study either locally or at global level.				
Dr. Zulfiqar Habib	Simulator for Unmanned Aerial Vehicle (UAV)	Cool test of UAV through simulator is very important before you fly your real UAV. A perfect simulator can save a lot of money. Simulator can be developed in any symbolic simulator like MatLab. Finally, developed simulator can also be converted into interesting games.	Intelligent Machines and Robotics		Developmen t (Application)	No
Dr. Rao Muhammad Adeel Nawab	Linguistically Motivated modified sentences	In paraphrased plagiarism, the most common	Natural Language Processing	Python, Java or Perl programmin g skill	Research & Developmen t	Yes

Supervisor		Title			Brief Descr	iption
Sort		explore linguistically motivated modification s of sentences. So, making sure that the modified sentences (or n-grams) come from sensible sentences, to build on the work which I did in my PhD (see Chapter 5 of my PhD thesis for more details).			Sort	
Dr. Rao Muhammad Adeel Nawab	Extracting parallel samples from comparable corpora.	Wikipedia is a multilingual resource. It can be used in extracting parallel fragments from its comparable articles in different language pairs. The outcome will be a valuable resource for machine translation.	Natural Language Processing	Python, Java or Perl programmin g skill	Research & Developmen t	Yes
Dr. Rao Muhammad Adeel Nawab	Cross- language re- use in source code	Whereas work on source code re-use detection started nearly forty years ago (Ottenstein, 1976), Internet has made available huge amounts of code. As for texts, "much plagiarism	Natural Language Processing	Python, Java or Perl programmin g skill	Research & Developmen t	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
	2004).	

Finding cases of reuse across programmin g languages seems to be an interesting problem. When dealing with this problem, it is possible to take advantage of the certain similarity between the reserved words across programmin g languages. Flores, Barr on-Cede~no, Rosso, and Moreno (2011, 2012) have made some preliminary efforts on detecting reuse among codes in C++, Java, and Python, using the crosslanguage character ngrams model. **Authors** suggested that crosslanguage alignmentbased analysis model may be valuable as well for two reasons: (i) building a statistical dictionary for reserved words is feasible and (ii) even the

Supervisor	Title	Brief Description
Sort	Sort	Sort
	for instance	

for instance, how short a code in Python should be respect to its source in Java. Flores, E., Barr'on-Cede no, A., Rosso, P., and Moreno, L. (2011). Towards the Detection of Cross-Language Source Code Reuse. International Conference on **Applications** of Natural Language to Information Systems, LNCS (6716), 250-253. Springer-Verlag. Flores, E., Barr'on-Cede no, A., Rosso, P., and Moreno, L. (2012). DeSoCoRe: Detecting Source Code Re-Use across Programmin Languages. Proceedings of Conference of the North American Chapter of the Association for Computation al Linguistics: Human Language Technologie s, Montreal,

Supervisor	Title	Brief Description
Sort	Sort	Sort
Nawab	looking for	g skill
	topical	
	similarity,	
	but for co-	
	derivation of	
	texts.	
	Therefore,	
	text re-use	
	detection	
	models	
	cannot be	
	considered	
	when	
	designing a	
	"traditional"	
	topic-based	
	search	
	engine.	
	However,	
	models for	
	text re-use	
	detection	
	are still	
	worth	
	considering	
	in modern	
	search	
	engines. For	
	instance, in	
	a	
	monolingual	
	setting,	
	models for	
	text re-use	
	detection	
	could be	
	used to	
	improve the	
	search	
	diversity:	
	avoiding to	
	present	
	near-	
	duplicate	
	documents	
	on top of the	
	returned	
	ranking. In a	
	cross-	
	language	
	setting,	
	these	
	models	
	could be	
	used to	
	assist the	
	user for	
	cross	
	language	
	searches.	
	Imagine the	
	following	
	cooperio: (i)	
	scenario: (i) a person	

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		one (e.g. Spanish is her native language and English the language of the query); (ii) the search engine returns a relevant document written in English; on the basis of algorithms for crosslanguage text re-use detection, a translation in Spanish is found. (iii) instead of offering the possibility for translating the relevant document "on the fly", the search engine offers the available translation, with a high likelihood of representing a better translation.				
Dr. Rao Muhammad Adeel Nawab	Identification of Proper Citations	Probably one of the most interesting topics for future research on plagiarism detection is the automatic analysis of citations and references, a problem that, although mentioned already by Maurer et al.	Natural Language Processing	Python, Java or Perl programmin g skill	Research & Developmen t	Yes

Supervisor	•	Title		Brief Description
Sort		Sort		Sort
		used, i.e., including its corresponding citation or reference, it does not compose a case of plagiarism, and it would not be considered as suspicion. The development of techniques for discriminating between plagiarism and properly cited re-use requires, firstly, obtaining (or generating) diverse cases of quotations and, more general, proper and wrong citations. Afterwards, models that recognise proper citation patterns could be designed.		
Dr. Zulfiqar Habib	Restaurant Automation	Restaurant automation is the next evolutionary step for restaurants that are looking to increase customer awareness and loyalty, and offer their valued guests a modern and interactive way to order food as well	Mobile App (Android, iPhone, etc.)	Developmen No t (Application)

Supervisor	Title	Brief Description
Sort	Sort	Sort
	sleek and	

easy-to-use Android tablets and mobile application that you can use to replace your outdated paper menus of yesteryear and provide guests with attractive electronic menu board instead. Restaurant Automation is designed to support all kinds of android based devices. Android tablets and mobile are one of the coolest ways to display ideas. Android based mobile applications are sleek, stylish and very handy, convenient and easy to use. They are interactive touch screen display which makes viewing a pleasure. We are going to facilitate the customers that they can easily order the desired food. There will be complete digital menu of restaurant

Supervisor		Title			Brief Descr	iption
Sort		delivery time of order will be notified and your order details will be sent to the counter.			Sort	
Dr. Zulfiqar Habib	Efficient biometric system for CIIT	Currently used biometric system is not sufficiently efficient & user friendly. Further it is not 100% accurate. We are developing a professional biometric system with better efficiency and accuracy.	Vision, Image & Graphics (VIG)	Digital Image Processing or Computer Vision	Developmen t (Application)	No
Dr. Zulfiqar Habib	Facts finding and monitoring of persons on social networks	Social networks on net are very useful and becoming more & more popular among young generation. However these are now the main cause of Cibber crimes. We are going to develop an application which can guess actual info. of newly added unknown person based on keywords used during messaging. All conversation will silently transfer to	Web Developmen t		Developmen t (Application)	No

Supervisor		Title		Brief Descri	ption
Sort		Sort		Sort	
		of any threat.			
Dr. Zulfiqar Habib	Final Year Projects (FYP) Managemen t System	Currently FYPs are being managed through Dropbox & Google site with some limitations. We are shifting the whole process of FYP managemen t on our local server with more features, flexibility and convenience	Databases and Operational Intelligence	Developmen t (Application)	No
5		Deployment of this project is also the part of our job.			
Rab Nawaz Jadoon & Jawad Shafi	Remote Administratio n using Mobile	The mobile devices are becoming more and more popular and powerful and are providing a new notion of communicati on that we could once only imagine. A truly wireless mobile is new to the vast majority of computer users. We know wireless mobile phones, but the idea of being able to connect to the Internet in a similar	Mobile App (Android, iPhone, etc.)	Developmen t (Application)	No

Supervisor	Title	Brief Description
Sort	Sort	Sort
	majority of	

majority of us are still accustomed to plugging a modem into a phone back to connect to the Internet remotely. The enhanceme nts in the technologies help us to have the Internet accessing facilities even on the mobiles. Our project is related to accessing a remote PC using a mobile. The system gives the user the user the ability to access remote computer via mobile phone from everywhere in the world. The user is connected to the Internet server by a service provider according to the IP address specified by him. If a connection established the user can access the remote system. The user can read, write and can execute specific files on the remote PC.

Supervisor	Title	Brief Description
Sort	Sort	Sort
	famous	
	spots, to	
	know more	
	about the	
	place he	
	hires a	
	guide. The	
	hired guide	
	then	
	narrates	
	history of the	
	place. The	
	proposed	
	system	
	doesn't	
	require a	
	physical	
	guide. The	
	Mobile	
	application	
	installed on	
	the mobile of tourist can	
	act as a	
	guide. The	
	application "Mobile	
	Travel	
	Guide"	
	solves all	
	these	
	problems. It	
	offers below	
	services, 1.	
	Retrieves	
	the user's	
	current	
	geological	
	coordinates. 2. Converts	
	the	
	Latitude/long	
	itude to	
	street	
	address. 3.	
	Does video	
	search for	
	that place	
	and displays those to	
	user. 4. User	
	user. 4. Oser watches the	
	video of his	
	choice. Mabila	
	Mobile	
	Application	
	has, □	
	Location	
	finder □ Video	
	Search □	
	Video player □ Provide	
	☐ Provide	

other

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
	graphics for the Islamic Economics Game	characters, scenes and other graphics related items for the above game. This effort does not need "programmin g" as such but requires a lot imagination and extensive use of many graphics related tools.				
Nadeem Ghafoor Chaudhry	Web Based Game to Simulate Islamic Economic System	It is the same idea as described above (Andorid or iPhone Based Game to Simulation of Islamic Economic System), except that instead of working on Android based platform it will be web based and can be even a Facebook application with same look and feel as the mobile based one.	Game Developmen t	Programmin g, DB, OS	Developmen t (Application)	Yes
Nadeem Ghafoor Chaudhry	Android or iPhone Based Game to Simulate Islamic Economic System	Almost every semester I hold a discussion on economic system of Islam and almost every time people ask me, where is it implemented	Game Developmen t	Java programmin g, DB, OS	Developmen t (Application)	Yes

Supervisor Title Brief Description  Sort Sort Sort  what about if we can			
what about if	Supervisor	Title	Brief Description
what about if	Sort	Sort	Sort
we can			
		we can	
		virtually	

virtually. What I mean is how about if we develop a large multiplayer computer game based on Islamic **Economic** principles. This game will have multiple benefits the immediate two are: 1) It will introduce people, especially our young people, to economic principles of Islam. Many of our youngsters play useless games like Simcity, Civilization etc. My aim is to engage young people in exploring concepts of Islamic economic system. These people most likely will not read economics books but they might play computer game. This way we can get them to discuss what is actually happening in our society as compared to what should

Supervisor	Title	Brief Description
Sort	Sort	Sort
	if we all play	

according to Islamic rules we will all ( except the current ruling elite ) be better off. This might bring about the much needed change without the bloodshed that political pundits are talking about. 2) It can generate data (albeit simulated/ga me data) about how an economic system based on principals of Islam will work, what will be the distribution of wealth, how will businesses operate in such a system etc. This will depend on how the game is designed and played. A basic version of the game with two modules was developed last semester by students of CIIT and one group from NU-FAST is working on a web-based version. But as anyone who has

Supervisor	Title			Brief Descr	iption
Sort	huge undertaking. It is a very large project and as such will require many people and a few years to fully develop.			Sort	
Dr. Zulfiqar Designir Habib fair route non- holonom mobile robots	e for any non- holonomic	Intelligent Machines and Robotics	Numerical Methods	Research & Developmen t	No
Dr. Zulfiqar Disaster Habib Manage t System (DMS) fo Airports	men collaboration with	VIG- Robotics, http://vig.cuil ahore.edu.p	Digital Image Processing or Computer Vision	Research & Developmen t	No

Supervisor	Title	<b>Brief Description</b>
Sort	Sort	Sort

Navigation System at Organization al level. Admin can perform following functionalitie s.Add map of any organization into Web Application Provide some details, such as, basic longitude and latitude, paths (such as roads, walking tracks etc), details of different locations.Wh ereas End user can Perform following functionalitie s: 1.) Search locations, 2.)Get directions from one place to another, 3.) Navigate through street view, 4.) Add favorite places, 5.) Create own map which will be synced with Android Application. 6.) Android Application will provide map and navigation system (using GPS) of the organization where user can search places, get directions (voice

Supervisor		Title			Brief Descr	iption
Sort		Sort  Android and Web  Application.			Sort	
Mehwish Fatima	Comparison of probabilistic routing protocol with proactive routing protocols in wireless adhoc networks	Wireless adhoc networks with mobile devices are highly dynamic and complex in nature. For such networks routing strategies are different from traditional networks as these networks are time variant. For such networks, we can find an efficient routing protocol under time-variant property of network.	Communicat ion Networks	Computer Networks    Strong programmin g concepts    Excellent command of C/C++    Eager to learn new material by self-study	Research & Developmen t	Yes
Mehwish Fatima	Detection of Malicious Applications on OSN	Online social networks (OSN) have grown a largest platform for interaction and entertainme nt such as games. A lot of applications are developed for the OSN; however, the real intentions of the application may vary from developer to developer. Some application may have malicious	Artificial Intelligence, Machine Learning	• Strong programmin g concepts • Excellent command of Java / Python • Good concepts of statistics and linear algebra (Optional) • Eager to learn new material by self-study	Research & Developmen t	No

Supervisor	Ti	tle	Brief Description
Sort	Sc	ort	Sort
	algorithms can be us to detect malicious applicatio offered to OSN user	ns	
Dr. Zulfiqar Habib	Smart Learning Advanced Tools for Education (SLATE)  SLATE, we developing state-of-the art and verifice interesting learning tools for the children of the control of the composition of the learning tools will as per the intellectual requirements of the learning environments based of concepts adapted of the control of the learning environments based of concepts adapted of the learning environments and the control of the learning environments and the concepts adapted t	Image & Graphics ve (VIG)  g a nee-ery g he of ain is the ur is.  not odat is the ery fints.  the image & Graphics very g and it is the ery on the image & Graphics very on the image & Graphi	Developmen Yes t (Application)

Supervisor		Title			Brief Descr	iption
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		friendly, bilingual (English and Urdu), available both for windows and android, handy (tablet & mobile versions), and helpful in clearing concepts using personalized examples from our own culture. It has flexible adaptation of teaching methods in the light of child performance catering the need of each individual student through evaluation after every lesson. Teaching, learning, and evaluation modules of our project are being surveyed during the development phases for the feedback of children,				
		and parents.				
Nadeem Ghafoor Chaudhry	Offshore Radiological	Like many other professional s in U.S.A radiologists are very expensive. On average a mid ranged	Software Engineering	Programmin g, DB, OS	Developmen t (Application)	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
	depressed	

depressed U.S economy everyone is trying to cut costs, so are hospitals. Insurance companies don't pay a penny more than what is the market rate for any medical procedure. As a result of all these pressures there a great demand for offshore radiological help. Like off shore call centers, hospitals in U.S are sending their radiological work to areas where they can find English speaking, competent radiologists at cheaper rates. India is one such location and Indian doctors are making good use of their IT infrastructur e to promote their services. Dr. TanveerZub airi of Punjab Radiology is trying to develop such a center in Pakistan. He needs a complete solution where by radiological

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		interpreted and reported by competent radiologists here in Lahore and sent back to USA. All of this has to be done in the constraints of time, US medical related laws ( which are quite extensive ), client satisfaction etc.				
Nadeem Ghafoor Chaudhry	Speech Therapy for Speech Challenged Children of Pakistan	Children who are born with serious hearing disorders don't develop speech abilities, even though their speech related physiological aspects are healthy. As a result they face a big challenge in the long run as far as their communicati on skills are concerned. Many opportunities available for ordinary members of society become out of reach for them. When such children are given hearing aids they face a very interesting	Software Engineering	Programmin	Research & Developmen t	Yes

Supervisor	Title	Brief Description
Sort	Sort	Sort
	thou don't	

they don't know how to speak. They need specialized training to learn to speak. It is a very frustrating process; each word has be repeated thousands of time. This training is imparted by trained speech therapists. The job of a speech therapist is very challenging and as such there is a high rate of turnover in this field. Moreover in Pakistan the number of properly trained speech therapists is far less than what is needed. As a result a large number of children are unable to receive the professional training that they need to be able to speak properly. With the decline in cost of computing hardware it is now possible for the less fortunate ones to afford basic

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		related software is proprietary and quite expensive, especially for those living in underdevelo ped countries. Moreover language is also a problem. Majority of the proprietary speech therapy software is meant to teach English, which is not our mother tongue. This project is intended to fill this gap.				
Dr. Zulfiqar Habib	Morphologic al Analysis of Human Sperms	This project will automate the pathological tests of human sperms by using video clips captured by digital microscope through morphologic al analysis.	Vision, Image & Graphics (VIG)	Digital Image Processing or Computer Vision	Research & Developmen t	No
Dr. Zulfiqar Habib	3D Obstacle Avoiding Smooth Path Planning for a UAV	In this project, we will develop a 3D smooth and obstacle avoiding path planning algorithm for an unmanned aerial vehicle (UAV) operating in natural	Intelligent Machines and Robotics	Computer Graphics, Embedded systems, Micro processing interfacing	Research & Developmen t	No

Supervisor		Title			Brief Descr	iption
Sort		Sort			Sort	
		simulator or on small size helicopter.				
Dr. Zulfiqar Habib	Swarm Managemen t System (SMS)	Auto crowd managemen t system by counting moving people using surveillance cameras is very useful, convenient and effective. Developed system will very intelligently manage the crowd of people on places having multiple entry/exit points and will keep the balance of people at every point. This project can further be extended for the security and many more applications.	Vision, Image & Graphics (VIG)	Digital Image Processing or Computer Vision	Developmen t (Application)	No
Dr. Zulfiqar Habib	Mammograp hy Visual Enhanceme nt in Cancer Diagnosis	This project is on visual enhanceme nt of MRI (Magnetic Resonance Imaging) for the convenience and accurate understanding of doctor. Enhanced image is also used to automate the diagnose process and grading of disease level.	Vision, Image & Graphics (VIG)	Digital Image Processing or Computer Vision	Developmen t (Application)	No

Supervisor		Title			<b>Brief Description</b>	
Sort		Sort			Sort	
		very serious and rapidly spreading breast cancer not only in our society but all over the world.				
Jawad Shafi	Remote Control NFC Enabled Smartphone	NFC (Near Field Communication) or Mobile RFID is integrated in most of the upcoming Smartphone, such as Samsung Google Nexus S. NFC feature works from a distance of around 20cm with passive RFID/NFC Tags having capacity of storing small amount of information. This information can be read by the NFC equipped Smartphone and further programmed to react (according to information available on RFID/NFC tag). Focus of this project will be on: Automaticall y launching Android Application by touching the NFC Tag, enabling Bluetooth and start	Software Engineering	Java, Android SDK, Eclipse, C# or Java (for desktop Application)	Developmen t (Application)	

Supervisor		Title			Brief Description
Sort		Sort			Sort
		Android Smartphone from the Desktop Computer via Bluetooth Controlling Android Smartphone from the Desktop Computer At least two applications would be required to develop, one for Android phone and the other for the desktop computer with whom it will communicat			
Dr. Zulfiqar Habib	Enhanceme nt and Grading of Retinal Images (EGRI)	e.  Diabetic retinopathy is a condition where the retina is damaged due to fluid leaking from the blood vessels into the retina and patient may lead to blindness if untreated. As the part of a mega project at local hospital, students need to enhance and grade retinal images for diabetes retinopathy.	Vision, Image & Graphics (VIG)	DIP or CV	Developmen No t (Application)

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Supervisor	Title	Brief Description
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