PUNJAB SAFE CITIES AUTHORITY
PSCA Headquarters, Qurban Lines Lahore, Pakistan.

042-99 05 16 05-8   042-99203026
042-111-77-22   www.psca.gop.pk

THE FUTURE OF PUNJAB POLICE

EXPRESSION OF INTEREST

HIRING OF INDIVIDUAL SHORT TERM CONSULTANT

Punjab Safe Cities Authority (PSCA) invites applications from qualified and experienced professionals as individual consultant for the following area on short-term consultancy basis:

Sr. No.	Name of Individual Consultancy	Qualification	Experience
01	**BIG DATA (R&I)"**	minimum Four (04) Years BS degree in Computer Sciences / Software Engineering / Information Technology, MCS, MSc IT or sixteen-years of IT education in the relevant field from HEC recognized university.	06 years' experience of Machine Learning/Deep Learning including developing custom and light weight CNNs for image and video processing, and deployment of developed models on in-house servers.

Interested individuals may submit their application along with the copy of CV, educational documents, experience certificates, CNIC, passport size photograph and <u>Financial Proposal</u> latest by 18-04-2023 till 12:00 hours, through email, courier or by hand. Only shortlisted candidates will be called for an interview. The Remuneration will be offered on the basis of qualification and experience. The said Consultant will be selected in accordance with the provisions of Punjab Procurement Rules 2014 for short term consultancy. The detailed ToRs are attached as Annexure

For submission of applications or obtaining any information, please feel free to contact at cons.services@psca.gop.pk, Contact: (+92) (42) (99051605-7) Website: www.psca.gop.pk

Mention the Name of the Consultancy in subject line/on outer Envelope. The CV/application will not be considered otherwise.

CHIEF LAW & PROCUREMENT OFFICER,
PUNJAB SAFE CITIES AUTHORITY,
PPIC3 Center, Qurban Police Lines,
Lahore

TERMS OF REFERENCE
INDIVIDUAL CONSULTANT
"BIG DATA (R&I)"

1. BACKGROUND

The Punjab Safe Cities Authority (PSCA), established under Punjab Safe Cities Act 2016, ensures establishment, development and maintenance of an integrated Command, Control, and Communication system (PPIC3) for Police in major cities of the province for public safety. The Safe City is a concept for returning security and quality of life to today's complex cities through the use of technology, infrastructure, personnel and processes. In order to realize the vision of developing safe cities in the province, PPIC3 Centre has been developed for Punjab Police in the city of Lahore and other centers are being established in other larger cities of the province.

2. OBJECTIVE/PURPOSE OF THE ASSIGNMENT

The selected Individual Consultant will provide services pertaining to exploratory data analysis. The consultant will have to work with stakeholders throughout the organization in order to identify opportunities and to drive business solutions, thereby bring optimization and improvement in police operational strategies.

3. SCOPE OF SERVICE

- Developing and implementing computer vision algorithms to analyze video footage from surveillance cameras to detect suspicious behavior, identify individuals, and track objects of interest.
- Designing and deploying video surveillance systems using in-house GPU servers, ensuring that they are optimized for performance and accuracy.
- Developing and maintaining web APIs that expose the results of computer vision analysis to other departments and stakeholders within the Safe City Authority.

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- Collaborating with cross-functional teams to ensure that video surveillance systems are integrated with other safety and security systems.

- Designing and conducting experiments to evaluate the accuracy and effectiveness of computer vision algorithms and video surveillance systems.

- Keeping up-to-date with the latest research in computer vision and machine learning, and identifying new opportunities for improving the performance of video surveillance systems.

- Adhering to ethical principles and data privacy regulations, ensuring that video surveillance systems are used in a responsible and transparent manner.

- Estimate, prioritize, plan, and coordinate testing activities.

- Communicate test results, issues, and risks to team members, project managers.

- Continually update technical knowledge and skills by attending in-house and external courses, reading manuals and accessing new applications.

- Manage and Direct Use of Technology Development Methods and Tools.

- Leading the development team in the design, development, coding, testing and debugging of applications.

- Manage both new development and enhancement projects from initial scope through requirements, coding, QA testing, and implementation.

- Keep up to date with the latest development software.

- Making plans to design new software and web applications.

- Ensure that technical solutions are in line with established standards in respect to architecture, security, corporate governance, coding standards, monitoring, logging, testing and service enablement.

- Collaborating with front end users on software functionality.

- Provide guidance to the team and ensure they adhere to development standards.

- Manage and execute against project plans and deliver commitments within a professional, high paced engineering environment.

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- Resolving software deployment and integration errors, and documenting processes.
- Performing routine maintenance and monitoring performance metrics.
- Any other tasks as assigned by the supervisor.

4. PROFILE OF CONSULTANT

The Consultant will be assigned from the list of shortlisted consultants fulfilling the minimum educational qualifications and experience requirements. Four (04) Years BS degree in Computer Sciences / Software Engineering / Information Technology, MCS, MSc IT or sixteen-years of IT education in the relevant field from HEC recognized university. 06 years' experience of Machine Learning/Deep Learning including developing custom and light weight CNNs for image and video processing, and deployment of developed models on in-house servers.

5. EXPECTED DELIVERABLES

A monthly progress report on Consultants work would be prepared and submitted, including tasks listed under "Scope of Services", above.

6. TIME PERIOD

The Consultants will be engaged for a period of three (03) months.

7. PAYMENT TO THE CONSULTANT

The payment to the Consultants will be made on a monthly basis upon submission of claim based on the services/ deliverables by the end of each month.