# Juru

**Company Profile** & Capability Overview

# **About Juru**

# Who we are

Founded in 2015 by Botir Gafurov, Juru is a leading international consultancy and engineering firm in Central Asia and the Caucasus with a mission to promote sustainable development.

# What we do

Advise	$\rightarrow$	Consult
Advisory on a wide range of energy, infrastructure, enviro and climate change fields.		Engineering developmei infrastructu
Design & Manage	$\rightarrow$	Sustain
Engineering design and man services in the energy and infrastructure sectors.	nagement	Environmer economic c sectors.
Innovate	$\rightarrow$	

Our in house research & development and innovation activities.

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Engineering consultancy and project development services across the energy, infrastructure and building sectors.

nvironmental, biodiversity and socioconomic consultancy across different ectors. 2015 9 Year of formation

**Key Facts** 

100

Juru

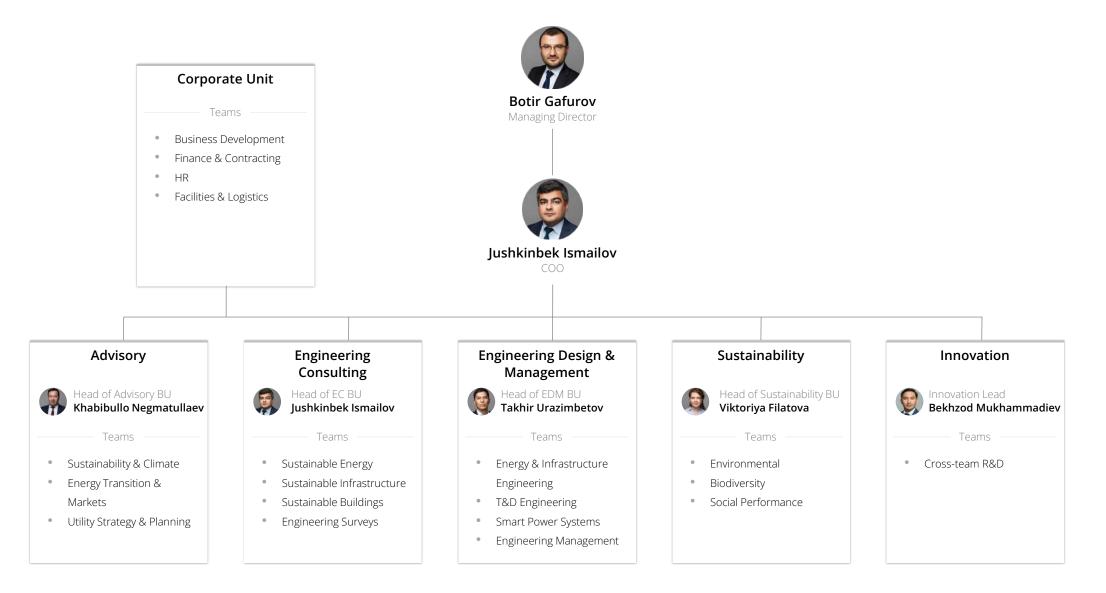
Number of projects

95

Full-time staff Experts in network

180

# **Organizational structure**



# Advisory

We provide advisory services to our public and private sector clients to help solve a wide range of issues in the fields of energy, infrastructure, environment and climate change.

# **Our Capabilities**

The world is changing rapidly, and the challenges we face are growing more complex. Juru is at the forefront of these changes, helping governments, international organisations and businesses adapt and build a more sustainable future. We provide specialised and tailored advice to our clients, helping them achieve their energy and climate goals and objectives. We offer a wide range of services, including market research, policy and regulatory analysis, energy and resource efficiency assessments, energy and climate transition strategies and roadmaps, investment needs and feasibility studies, etc.

We use advanced tools and knowledge to conceptualise, design and deliver innovative solutions that meet the specific needs of our clients. Our expertise spans across key sectors, including energy, industries, water, waste, cities/urban development, buildings, and more.

Explore references

# Khabibullo Negmatullaev

Head of Advisory BU | LinkedIn | Email

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# **Key Expertise**

### Sustainability & Climate

- Policy and regulatory
- Energy and resource efficiency in buildings, industry and utilities
- Climate strategy and roadmaps with actionable climate mitigation and adaptation measures
- Emissions inventories, carbon footprint assessments
- Circular economy
- ESG advisory

## **Utility Strategy & Planning**

- Business model & strategy
- Utility restructuring
- Digitization services
- Performance improvement

# **Energy Transition & Markets**

- Energy sector planning \_
- Least cost expansion planning
- Investment planning
- Market modelling and analysis
- Market design \_

# Engineering Consulting

We have unique skills in engineering consultancy and project development across energy, infrastructure and building sectors.

# **Our Capabilities**

As the world shifts to sustainable energy and infrastructure, governments and organisations face a challenge to deploy efficient and sustainable technologies while ensuring the economic and financial viability of projects. Successful project implementation requires a cross-disciplinary approach and expertise to ensure that projects are technically efficient, environmentally friendly, and adhere to best practices from planning to operations. Juru has strong expertise as a reliable engineering partner that provides comprehensive solutions.

We work with our clients throughout the project lifecycle, from initial planning and feasibility studies to final construction and commissioning. We support the development of sustainable energy, infrastructure and building projects that promote efficiency, climate resiliency, and have minimal impact on the environment and communities.

Explore references

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Head of EC BU | LinkedIn | Email

lushkinbek Ismailov

# Key Expertise

### Sustainable Energy

- Site screening and selection
- Conceptual design development
- Resource and yield assessment for RES
- Solar and wind measurement campaigns
- Financial and economic analysis
- Pre-feasibility and feasibility studies
- Technical advisory / tender support
- Project implementation support
- Technical due diligence

#### Sustainable Buildings

- Energy efficiency in buildings and structures
- EE consultancy for construction projects
- Energy audit of buildings
- Low-carbon assessments for the housing sector
- HVAC system design
- Feasibility of alternative solutions in HVAC
- Technical documentation for construction

## Sustainable Infrastructure

- Site screening
- Conceptual design development
- Financial and economic analysis
- Pre-feasibility and feasibility studies
- Technical advisory / tender support
- Project implementation support
- Technical due diligence

#### **Engineering Surveys**

- Geotechnical investigation
- Geophysical studies
- Soil and rock laboratory analysis
- Topographical survey
- Hydro-meteorological survey
- Solar and wind measurement campaigns
- Ground based albedo measurements
- Pile pull out tests

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# **Engineering** Design & Management

We have market-leading expertise in engineering design & management services in the energy and infrastructure sectors in our key geographies.

# **Our Capabilities**

luru is a leading engineering design and management firm with expertise in energy and infrastructure facilities. We have designed and managed a wide range of projects, including solar and wind power plants, high-voltage (HV) substations and transmission lines, and HV cables. We adapt our international experience to the local context to help clients develop and implement projects that are both technically feasible and commercially viable.

We have experienced engineers who can design energy and infrastructure facilities that meet the international and the local standards of safety, reliability, and efficiency. We also have a proven track record of managing complex projects from concept to completion. We work closely with our clients to ensure that projects are delivered on time, on budget, and to the required quality standards. We have a deep understanding of the local context in which we operate. This allows us to tailor our solutions to meet the specific needs of our clients.

Explore references

# Takhir Urzimbetov

Head of EDM BU | LinkedIn | Email

# **Key Expertise**

#### **Energy & Infrastructure** Engineering

- Design adaptation
- Basic & detailed design
- Permitting support
- Procurement support

**Smart Power Systems** 

Grid compliance studies

Dynamic stability studies

studies

studies

Power evacuation studies / grid impact

Energy storage integration studies

Electromagnetic transient (switching)

Electrical interconnection facility design

Design supervision

### **Transmission & Distribution** Engineering

- FEED design and pre-bid engineering support
- Basic & detailed design
- Protection coordination studies
- Designing digital substation based on IEC 61850
- Emergency control automation design
- Design supervision
- Procurement support

## Engineering Management

- Project management
- EPC procurement support
- Design review
- Site supervision
- Commissioning support
- Construction supervision
- Owner's Engineer services

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# Sustainability

We have one of the most sophisticated team of environmental, biodiversity, and social experts in Central Asia. We serve the energy, infrastructure, and industrial sectors.

# **Our Capabilities**

Investment projects can have a significant impact on the environment and society, including impacts on natural resources and local communities. It is essential to address these challenges in order to ensure that projects are sustainable, socially responsible, and financially viable.

We are a leading environmental, social, and health & safety (E&S) consulting firm with expertise in different disciplines. We work with international financial institutions, private developers, and governments to address environmental and social challenges in the energy, infrastructure, industrial, and building sectors. We help our clients navigate complex regulations, identify and mitigate potential impacts, ensure public participation, and strengthen the bankability of their projects.

Explore references

Viktoriya Filatova Head of Sustainability BU | <u>LinkedIn</u> | <u>Email</u>

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# **Key Expertise**

#### Environmental

- Full bankable ESIA package
- Environmental permitting (National EIA)
- Environmental due diligence and audits
- Soil contamination assessment
- Surface/Underground/Sewage Water quality assessment
- Air quality & noise monitoring
- Landscape survey
- GIS mapping
- EHS studies

## **Biodiversity**

- Biodiversity impact assessment
- Critical habitat assessment
- BAP preparation
- Habitat quality assessment mapping
- GIS mapping
- Collision Risk Modelling
- Ornithological surveys
- Bat passive and active acoustic monitoring
- Flora survey

## **Social Performance**

- Social impact assessment
- Socio-economic surveys of households
- Regulatory review
- Archaeological and cultural heritage review
- Conducting stakeholder engagement plan
- Land acquisition and Livelihood restoration
- LRF/LRP/RAF/RAP
- Public disclosure meetings

- Terrestrial ecology surveys
- Riverine ecology surveys
- Pre-construction surveys and permitting

# Innovation

At Juru, we believe that innovation is the key to solving real-world problems. That's why we invest in R&D to bring new products and services to market that solve these problems.

# **Our Capabilities**

We invest part of our profit in research and development to bring new products and services to market that help to reduce our reliance on fossil fuels, improve energy efficiency (EE), and improve sustainability. The kind of projects we initiate will depend on our interests at the time and the available funding. Some of the projects we were involved in included:

- Grid-connected solar rooftop project: This project piloted one of the first grid-tied solar rooftop projects in Uzbekistan.
- Individual house retrofit project: This project improved the energy efficiency of a single-family home by installing EE appliances, insulation, and windows. The project resulted in a 45 % reduction in the home's energy consumption.
- Greenfield low-carbon house project: This project is building a new house in Tashkent, Uzbekistan designed to be as energy-efficient as possible. The house is built using sustainable materials and features a variety of energy-saving technologies.

We are committed to continuing our research and development efforts and to bringing new and innovative solutions to market.

# Latest Project

## Geofizika Low Carbon House Project

Juru's own low carbon house innovation project in Tashkent with modern architectural design, passive house principles using eco-friendly building materials, low carbon HVAC system and power supply option based on solar PV

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Explore reference





Bekhzod Mukhammadiev Innovation Lead | LinkedIn | Email

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# **References: Advisory**



# **Central Asia Low Carbon Climate Resilient Cities**

Client:

Location: **Central Asia** 

Year: World Bank 2022-2023

- Inception and stocktaking
- Spatial Analysis and Quantitative Assessment
- Support in building GHG profiles for CA cities
- Assessment of urbanisation trends
- Institutional assessment. pilot investment identification and PFS studies
- Organisation of capacity building workshops



#### Advisory support to Kazakhstan for developing local RE supply chain

Kazakhstan	MoE Kazakhstan	2021
ocation:	Client:	Year:

- High-level overview of the current RES market and opportunities until 2030
- Mapping of RES value chain and application to Kazakhstan
- International best practices review
- Policy guidance, policy paper and recommendations
- Conduct workshop to present policy paper



#### Supporting Development of Innovative **Green Housing Finance in Kazakhstan**

Kazakhstan	ADB	2023-2024
Location:	Client:	Year:

- Plan and design a green housing component
- Perform feasibility and cost analysis of an energy efficient green housing community project plan Establish standards, criteria and cost-benefit requirements for the housing sector;
- Assessment and development of action plan for the development of the green technology sector Organize workshops in green technologies.



## Roadmap of Uzbekistan Industrial Decarbonization

World Bank	2021-2022
Client:	Year:

- Assessment of the industrial sector and decarbonization pathway
- Industrial symbiosis assessment in decarbonization pathway to Eco-Industrial parks Pre-FS of WWTP in FEZ
- Development of a Roadmap to decarbonize the industrial sector

# **References: Engineering Consulting**



# Support for the Implementation of Wind Auctions in Uzbekistan (Phase I, II, BESS)

Location: Uzbekistan Year: **2019-2023** 

 Support site selection, energy yield assessment, grid connection study and wind park layout

Client:

EBRD

- Transaction structuring, full package of tender documents and bid evaluation
- BESS technology overview, high-level sizing, LCoS computation and integration studies
- E&S assessment and bird monitoring



### Technical and Commercial Advisory Services for the Development of a Utility Scale Solar PV Park in Cambodia

Location:	Client:	Year:
Cambodia	ADB	2017-2019

- Detailed Feasibility Study for a 100 MW solar park, transmission line, substation, BESS
- ESIA (IEE, RF, RP) for a 100 MW solar park, transmission line, substation, BESS
- Transaction advisory for 60MW IPP/PPP
- Procurement advisory for EPC solar park infrastructure and PIC



## Technical Advisory Services for Sewage Treatment Plant in Tashkent

Jzbekistan	ADSSC	2022-2023
ocation:	Client:	Year:

- Review local construction and environmental laws/regulations, and permitting requirements
- Advise on general compliance and governance models concerning greenfield infrastructure
- Assess key E&S impacts and risks during the construction and operation phases
- Provide geotechnical and topographical surveys for WWTP and sewerage networks



## Uzbekistan: Resource Efficiency Audit (REA) at Korzinka

Location:	Client:	Year:
Uzbekistan	EBRD	2023

- Participate and support in energy and resource assessments;
- Support in site-visits/walkthrough audits of 4 stores;
- Assess current operations, identify improvement measures (EE and RE)
- Assessment and recommendations for of building envelope, lighting and HVAC performance
- Support in CAPEX/OPEX estimation.

# **References: Engineering Design & Management**



## 2x500 MW Bash and Dzhankeldy WPP – Engineering & Design Services

Location: **Uzbekistan** 

Client: Year: An North China Power 2022-2024 Engineering

- Wind farms comprehensive Engineering Review and permitting support
- 2x500 kV AIS Substation detail design
- 2x 500 kV OHTL detail design ca. [162.5] km OHL between Karakul 500 kV S/S and Bash WPP and ca. [128.5] km OHTL between Bash WPP and Dzhankeldy WPP
- Power system studies for the integration of wind farms



#### 1,500 MW Syrdarya CCGT – 500/220 kV AIS Power System Studies and Comprehensive Engineering Design Review

Uzbekistan	ACWA Power	2017-2019
Location:	Client:	Year:

- AIS related additional power system studies: SHR studies for 500kV, CLR study for 220 kV, Static & Dynamic Stability analyses for ECA
- Development of the ToR for the complete
  500/220 kV scope for Basic and Detailed design
- 500/220kV AIS Basic & Detail Design Engineering review, adaptation, validation with respect to local codes, standards, norms and regulations



#### OE and PMC Services for the 220MWac Jizzakh Solar PV, 220MWac Samarkand Solar PV and 457MWac Sherabad Solar PV

Uzbekistan	Masdar	2022-2024
Location:	Client:	Year:

- Project Management and Administration Services
- Schedule and Cost Management Services
- Design Review of 3 x PV plants, 4 x 220 kV
  Substations, and 4x220 kV OHL
- Permitting Compliance and Management
- Construction and Site Supervision, Commissioning, Energization and Site Acceptance Tests
  - Health, Safety, Environment and Social Services



#### 100 MW Nur Navoi Solar Power Project - Engineering, Design and Power Evacuation Studies

Location:	Client:	Year:
<b>Uzbekistan</b>	<b>World Bank</b>	<b>2020-2021</b>

- Comprehensive Engineering Review, Static and Dynamic Stability Study and ECA Design
- Basic and Detailed Design Development for 220kV AIS and 220kV OHTL Engineering
- Transmission grid model, steady-state analysis, interconnection concept and cost estimates

# **References: Sustainability**



# Namangan WWTP Project -ESIA and National EIA

Location: **Uzbekistan**  Year: **2022-2023** 

Baseline studies (noise, odour, dust, soil contamination, riverine ecology)

Client:

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- Socio-economic study of the project site and effluent pipeline
- Public consultations and disclosure meetings
- Permitting support and National EIA
- Support in submission of ESIA to lenders



## 500 MW Bash and Dzhankeldy Wind Projects and OHTL – ESIA and RAP/LRP

Location:Client:Year:UzbekistanACWA Power2020-2023

- Full ESIA package, including organization of public consultations and disclosure meetings
- Resettlement Action Plan and Livelihood
  Restoration Plan
- Pre-construction surveys and Management Plans
- Permitting Support and National EIA



### 500 MW Zafarshan Wind Farm -Terrestrial and Bird & Bat Monitoring

zbekistan	Masdar	2020-
ocation:	Client:	Year:

sdar 2020-2022

- Site assessment form E&S perspective
- Biodiversity survey of the project site and associated facilities: habitat and botanical, reptile and amphibian, mammal and invertebrate surveys
- Bird and Bat monitoring
- Transect survey



### Development of the Best Practice Guidelines on Management of E&S Impacts in Solar Energy Sector

Location:	Client:	Year:
Uzbekistan	EBRD	2021-2022

 Review of EBRD requirements, Uzbekistan regulatory framework and solar projects pipeline

- Develop Sector Specific Best Practice Guidelines on Management of Environmental and Social Impacts, i.e. for EBRD Countries of Operation
- Conduct Capacity Building Webinar

# **References: Innovation**



#### Geofizika Low Carbon House

Location: Uzbekistan Client: Juru Year: 2021-2024

Juru's own low carbon house innovation project in Tashkent aims to apply modern architectural design, passive house principles using eco-friendly building materials, low carbon HVAC system and power supply option based on solar PV. A two-story house will be built in the land of 600 sqm. Overall scope covers architectural and engineering design, procurement and construction management. Key project features:

- Total land: 600 sqm; built area: 350 sqm; total house space: 350 sqm
- HVAC: Heating/cooling based on Air-Source Heat Pump; hot water supply based on solar thermal system; ventilation system based on MVHR
- Power supply: ca.14 kW grid connected rooftop solar PV with battery storage
- EV charging facility

#### Services rendered:

- Conduct topographical survey and geotechnical investigation including determination of the ground water levels with further laboratory tests;
- Assess site suitability from technical perspective
- Undertake market research to procure EE materials and equipment;
- Model building's energy performance;
- Prepare Engineering design in compliance with local requirements, and with international best practices on green building construction
- Prepare technical specifications;
- Advice on available green building certificates;
- Construction management.

# **Our Clients**

**International Financial Institutions** 

Company Profile | Our Clients

MINISTRY OF ENERG

www.juru.org



SAMSUNG

SAMSUNG C&T

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