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**DISCOVER  
Vladivostok**

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by



**Moscow  
Workshops  
ICPC**

Dear friend,

We would like to invite you and your team to participate in the Discover Vladivostok Programming Workshop organized by Moscow Workshops ICPC. It will take place in Russia, in the city of Vladivostok **in the Far East Federal University Campus from 6th to 13th of July 2019** and will let you get prepared for regional ICPC contests and ICPC World Finals. The official language of the event is English.

There are two main reasons why this time we've chosen Vladivostok as the place to hold an international summer programming workshop. The first reason is that Vladivostok is one of the most spectacular places of interest after Moscow and Saint Petersburg, it is known to be the Pacific gate of Russia. The second reason to choose Vladivostok is that citizens of [18 countries](#) can **apply for a free electronic visa and stay in Vladivostok for 8 days** starting from the date on entry. It means that students from China, Korea, Japan, UAE, Qatar, and [13 other places](#) have an opportunity to proceed 10-minutes online registration, and then come to Russia. And they are not required to get hotel booking confirmation or any other documents to confirm the purpose of the journey to the Russian Federation. Tadaaah! Please visit [this website](#) for more details.

To learn the schedule and the pricing for the Discover Vladivostok 2019 Summer Workshop, please visit our [website](#). The price depends on the date of payment and citizenship and includes full curriculum, accommodation, food and beverage, sightseeing tour.

**Registration closes at 23:59 on the 1st of July 2019 Moscow time (GMT+3).**

"Discover Vladivostok 2019 by Moscow Workshops ICPC" is available for teams of A and B divisions depending on the skill level. Div. B is designed to help teams to prepare for regional and international ICPC competitions, while Div. A is designed to prepare students to participate and win medals in the next ICPC World Finals. **11 of 12 medalists and 51 universities of 135 that participated in ICPC World Finals 2019 in Porto were trained at Moscow Workshops and outbound programming bootcamps organized by Moscow Workshops ICPC.**

If for some reason you are not going to participate in Discover Vladivostok 2019 programming workshop, please share this letter with your friends, fellow students, mate coaches, and future generation ICPC competitors, who might be interested in this event.

If you have any questions on this Workshop, please do not hesitate to contact us over this email: [workshops@it-edu.com](mailto:workshops@it-edu.com).

Learn more about  
Discover Vladivostok 2019 Workshop

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Best regards,

Far Eastern Moscow Workshops ICPC  
off-site team



**Moscow Workshops ICPC**



# WHAT IS ICPC?

## ICPC – competitive programming Olympic Games

ICPC is the biggest annual multi-tiered programming competition among the universities of the world\*.

Young talents from Europe, North and South America, Asia, Africa, and Australia are involved in solving the most complicated problems in conditions of limited time

**International Collegiate Programming Contest** is the leading global platform for academic and industrial partners and universal professional community. It attracts attention to IT industry opportunities and shows possibilities for coming IT Professionals generation which is aimed at perfection



\* Since 1977

# BY THE BEGINNING OF 2019, THE INTERNATIONAL ICPC-COMMUNITY IS



**6**

continents

**115**

countries

**3,233**

universities



**5,411**

coaches

**52,709**

students

**320,000+**

alumni



**530**

sites

**30,000+**

competing  
on-site

**since 1970**

history  
impact

# OUTSTANDING ICPC ALUMNI ARE NOW THE LEADERS OF IT-INDUSTRY



Adam D'Angelo

Co-founder of Quora, Former CYO of Facebook, Silver medal on ICPC 2004



Matei Zaharia

Professor in Stanford University, Co-founder of Databricks, Gold medal on ICPC World Finals 2005



Tony Hsieh

CEO Zappos, Founder of LinkExchange, World winner on ICPC 1993



Nikolai Durov

Co-founder of VK and Telegram, Winner of ICPC World Finals 2000



# What does the ICPC-community bring? to students:

development of programming and algorithmic problem solving skills

opportunity to fulfill personal and professional ambitions

rapid career start



## to partners:

market expansion of highly qualified professionals in the IT-industry

HR development of the brand/  
company

presence in international  
educational agenda





# Employment of the ICPC participants 1999-2017

(survey covered 30.000 participants from 320.000 ICPC alumni)



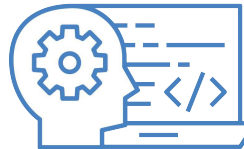
## Management

- 1 506 founders and co-founders
- 519 CEOs
- 1 194 presidents and deputy
- 511 business owners
- 250 CTOs
- 139 executive directors
- 571 partners
- 65 chairmen of the board of directors
- 260 CEOs
- 766 directors of educational projects
- 683 senior employees
- 3 559 directors
- 216 lawyers
- 3 663 scientist-researchers



## Engineers

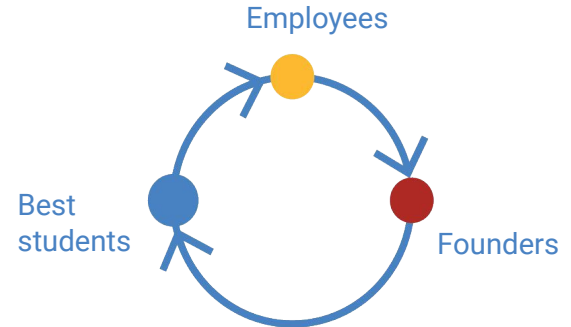
- 20 090 engineers
- 17 932 software engineers / developers



## Research & Development

- 2 934 professors
- 1 652 Data Scientists / Data Engineers

## Interaction in ICPC







# ICPC alumni employed by TOP companies

(survey covered 30 000 participants from 320 000 ICPC alumni)

ABB (24)	CA Technologies (25)	Fidelity (46)	LG (25)	Prudential (22)	The Boston Consulting Group (44)
Accenture (271)	Caggemini (64)	Flipkart (102)	LinkedIn (168)	PwC (197)	Thermo Fisher Scientific (29)
Adobe (179)	Capital One (83)	Ford Motor Company (38)	Lockheed Martin (53)	Qualcomm (147) Quora(14)	Thomson Reuters (52)
Agoda (31)	Cerner Corporation (60)	Fujitsu (21)	McKinsey & Company (79)	Rakuten (25)	Tokopedia (36)
AIG (27)	CGI (36)	Garmin (22)	Media.Net (31)	Raytheon (43)	Tower Research Capital (32)
Airbnb (64)	Cisco (182)	GDP Labs (39)	Medtronic (23)	RBC (31)	Toyota (20)
Akamai (22)	Citadel (29)	GE (121)	Mentor Graphics (20)	Red Hat (41)	Traveloka (76)
Alibaba (44)	Citi (144)	General Dynamics (25)	Merck (34)	Riot Games (22)	Twitter (59)
Amazon (1378)	Citrix (21)	General Motors (46)	Microsoft (1270)	Robert Bosch (22)	Two Sigma (38)
Amdocs (29)	CodeNation (20)	Goldman Sachs (264)	Mitsubishi (20)	Rubrik, Inc. (23)	U.S. Air Force (26)
American Express (35)	Cognizant (137)	Google (2178)	Morgan Stanley (164)	Salesforce (91)	Uber (210)
Amgen (20)	Comcast (32)	Groupon (27)	Mozilla (25)	Samsung (319)	UBS (40)
Apple (259)	Credit Suisse (51)	HCL Technologies (47)	NASA (21)	SAP (136)	UnitedHealth Group (44)
Applied Materials (26)	Cummins Inc. (22)	Hewlett Packard (107)	NCR Corporation (21)	SAS (25)	Upwork (23)
Arcesium (22)	D. E. Shaw & Co. (25)	Hitachi (25)	NEC (25)	Schlumberger (27)	USAA (25)
Arista Networks (33)	Dell (77)	Honeywell (32)	NetApp (22)	Schneider Electric (23)	Verizon (56)
ARM (29)	Deloitte (227)	HSBC (67)	Netflix (24)	Shell (29)	Visa (63)
AT&T (36)	Deutsche Bank (75)	Huawei (55)	Nike (22)	Siemens (80)	VMware (83)
Atlassian (22)	Directi (72)	IBM (401)	Nokia (38)	Snap Inc. (77)	Vodafone (24)
Autodesk (20)	Dropbox (50)	ICICI Bank (25)	Nomura (30)	Sony (32)	Walmart (123)
Baidu (52)	eBay (42)	Indeed.com (32)	Northrop Grumman (57)	Spotify (29)	Walt Disney (23)
Bain & Company (32)	Electronic Arts (EA) (33)	Informatica (30)	Novartis (29)	Sprinklr (22)	Wells Fargo (83)
Merrill Lynch (103)	Eli Lilly (22)	Infosys (148)	Nutanix (25)	Square (36)	Wipro (63)
Barclays (79)	EMC (22)	InMobi (25)	NVIDIA (78)	StandardCharteredBank(32)	Works Applications Co., Ltd. (35)
BlackRock (33)	EPAM Systems (43)	Intel (253)	Ola (ANI Technologies Private Ltd) (26)	Sumo Logic (20)	WorldQuant (22)
Bloomberg (125)	Epic (107)	Intuit (44)	Oracle (289)	Symantec (30)	Yahoo (51)
Boeing (47)	Ericsson (64)	IPvision Canada Inc (26)	Palantir (53)	Synopsys (36)	Yandex (88)
Booking.com (53)	Expedia (63)	Jetbrains (20)	Payalntir (53)	Tableau Software (22)	Yelp (27)
Booz Allen Hamilton (28)	ExxonMobil (27)	Johnson & Johnson (31)	PayPal (59)	Target (40)	YouTube (22)
Bosch (29)	EY (181)	JPMorgan Chase (225)	Paytm (38)	Tata (241)	Zoho Corporation (29)
BP (26)	Facebook (688)	KPMG (104)	Philips (39)	Tencent (26)	ZS Associates (27)
Broadcom (30)	FactSet (30)	Larsen & Toubro (27)	Pinterest (42)	Tesla (35)	
Bukalapak (28)	FedEx (26)	Leidos (23)	Procter & Gamble (25)		

# MOSCOW WORKSHOPS ICPC

International educational project of competitive programming

**2200** participants in **7** years



**Moscow Workshops ICPC**

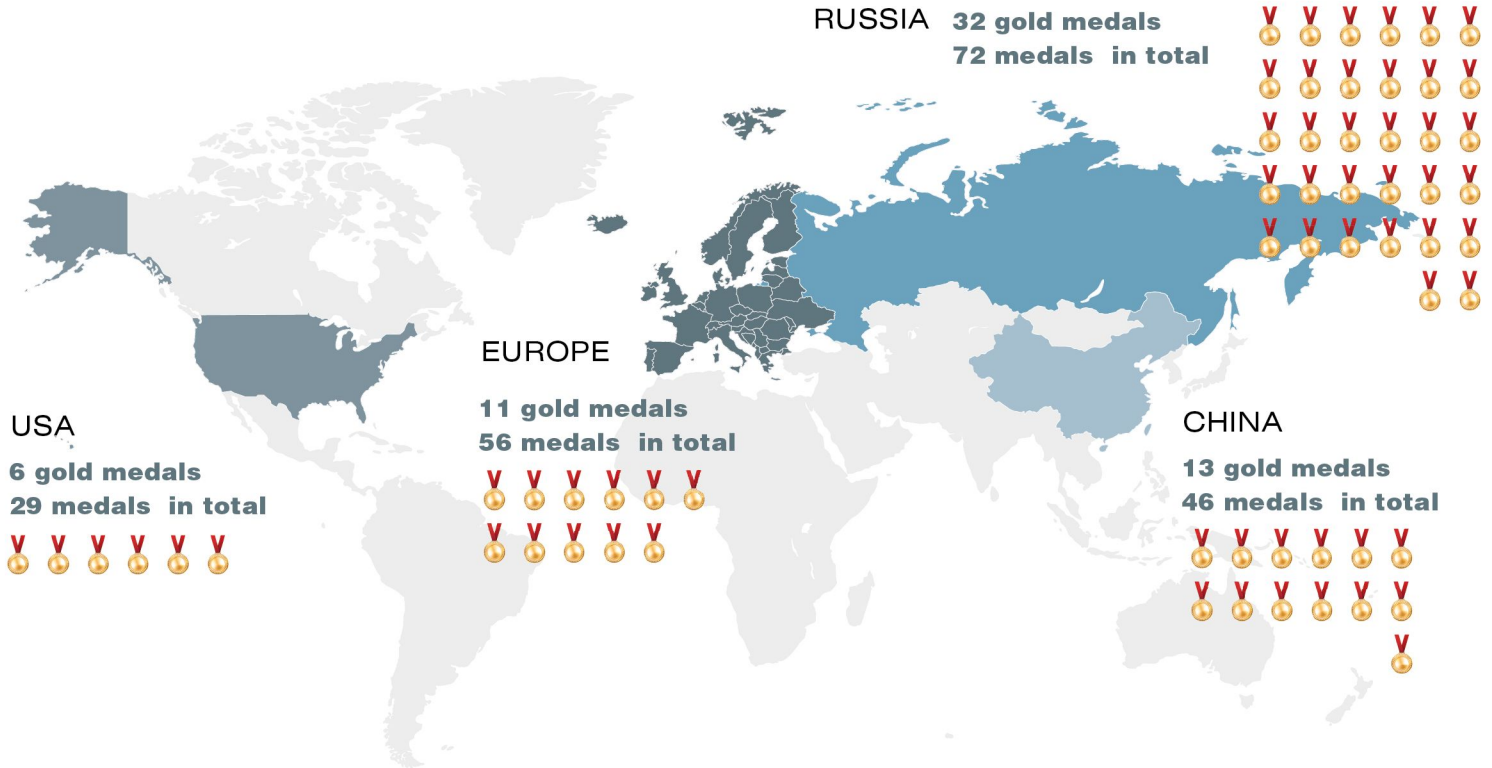
Moscow Workshops ICPC (MW) as an international educational project for collegiate programmers was founded on MIPT campus in 2012.



MW is experienced in training ICPC champions and in organizing large sport programming events, which allows us to shine the spotlight of academia and industry on the next generation of computing professionals – the ICPC contestants.

# ICPC WORLD FINALS MEDALISTS

since 2000
























































BY MEANS OF MOSCOW WORKSHOPS WE INFLUENCE THE OUTCOMES  
OF THE WORLD CHAMPIONSHIP SCORE

# MEDALISTS OF THE WORLD FINALS ICPC THAT ATTENDED MOSCOW WORKSHOPS

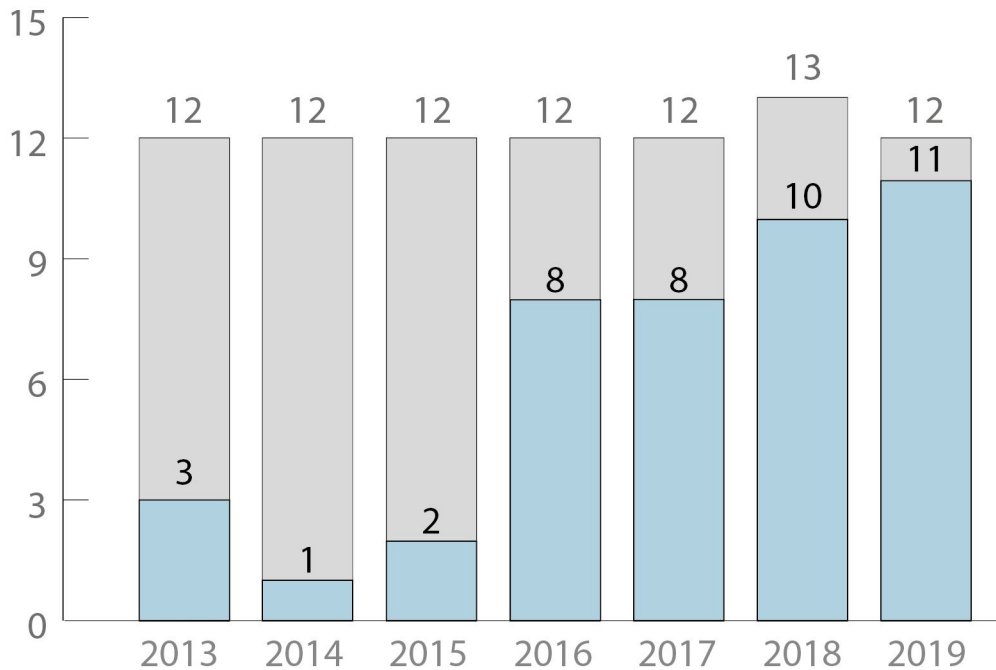
10 out of 13 medalists participated in MW in 2018

11 out of 12 medalists participated in MW in 2019

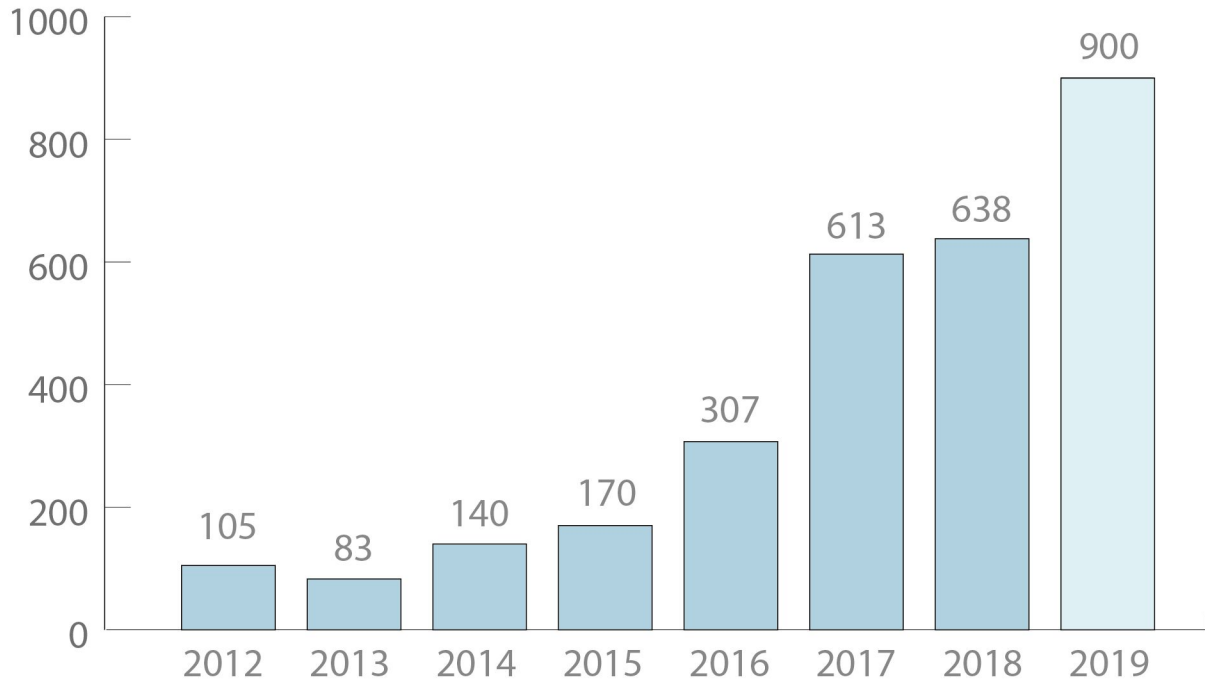
Place	Name	Solved	Time
 1	 MSU  MW Participant	9	1427
 2	 MIPT  MW Participant	8	960
3	 Peking U	8	1190
4	 Tokyo U  MW Participant	8	1566
5	 Seoul U	7	719
6	 NSW U  MW Participant	7	855
7	 Tsinghua U  MW Participant	7	1002
8	 Jiao Tong U  MW Participant	7	1016
 9	 ITMO U  MW Participant	7	1086
10	 U of C Florida  MW Participant	7	1133
11	 MIT	7	1144
12	 Vilnius U  MW Participant	7	1174
 13	 UrFU  MW Participant	7	1234

Place	Name	Solved	Time
 1	 MSU  MW Participant	10	1531
2	 MIT  MW Participant	9	1191
3	 Tokyo U  MW Participant	9	1386
4	 Warsaw U  MW Participant	8	891
5	 National Taiwan U  MW Participant	8	1179
6	 Wroclaw U  MW Participant	8	1200
7	 Seoul National U  MW Participant	7	783
8	 KimChaek U	7	803
9	 Sharif U  MW Participant	7	923
 10	 MIPT  MW Participant	7	954
 11	 HSE  MW Participant	7	990
12	 Hong Kong U  MW Participant	7	1057

# Number of teams participated in Moscow workshops that have been awarded with medals at icpc world finals



# The number of Moscow workshops participants per year



# MOSCOW WORKSHOPS ICPC MISSION

Our mission is to help talented students  
to become leaders of technological  
breakthroughs





# RECENT CAMPS OF MOSCOW WORKSHOPS ICPC

Internal workshops
  External workshops

Spring 2016
Spring 2017
Spring 2018
Spring 2019

Countries: 9  
 Universities: 26  
 Teams: 38  
 Participants: 111

Countries: 19  
 Universities: 44  
 Teams: 60+7\*  
 Participants: 169

Countries: 19  
 Universities: 46  
 Teams: 58+3\*  
 Participants: 176

Countries: 19  
 Universities: 41  
 Teams: 52+5\*  
 Participants: 160

\*distantly

\*distantly

\*distantly

Summer
Fall 2012
Fall 2013
Fall 2014
Fall 2015
Fall 2016
Fall 2017
Fall 2018

Countries: 2  
 Universities: 7  
 Teams: 7  
 Participants: 45

Countries: 4  
 Universities: 10  
 Teams: 20  
 Participants: 60

Countries: 5  
 Universities: 17  
 Teams: 28  
 Participants: 83

Countries: 8  
 Universities: 25  
 Teams: 49  
 Participants: 140

Countries: 11  
 Universities: 35  
 Teams: 59  
 Participants: 170

Countries: 13  
 Universities: 40  
 Teams: 67  
 Participants: 196

Countries: 17  
 Universities: 39  
 Teams: 60+4\*  
 Participants: 195

Countries: 15  
 Universities: 49+2\*  
 Teams: 69+4\*  
 Participants: 202

\*distantly

\*distantly

Barcelona 2017
Barcelona 2017 II
Barcelona 2018
Grodno 2017
Grodno 2018
India 2018
Vladivostok 2018
Pekin 2019
Muskat 2019

Countries: 17  
 Universities: 22  
 Teams: 31  
 Participants: 82

Countries: 30  
 Universities: 53  
 Teams: 59  
 Participants: 147

Countries: 18  
 Universities: 27  
 Teams: 38  
 Participants: 98

Countries: 3  
 Universities: 4  
 Teams: 8  
 Participants: 20

Countries: 4  
 Universities: 7  
 Teams: 13  
 Participants: 30

Countries: 7  
 Universities: 23  
 Teams: 40  
 Participants: 103

Countries: 2  
 Universities: 8+1\*  
 Teams: 12  
 Participants: 29

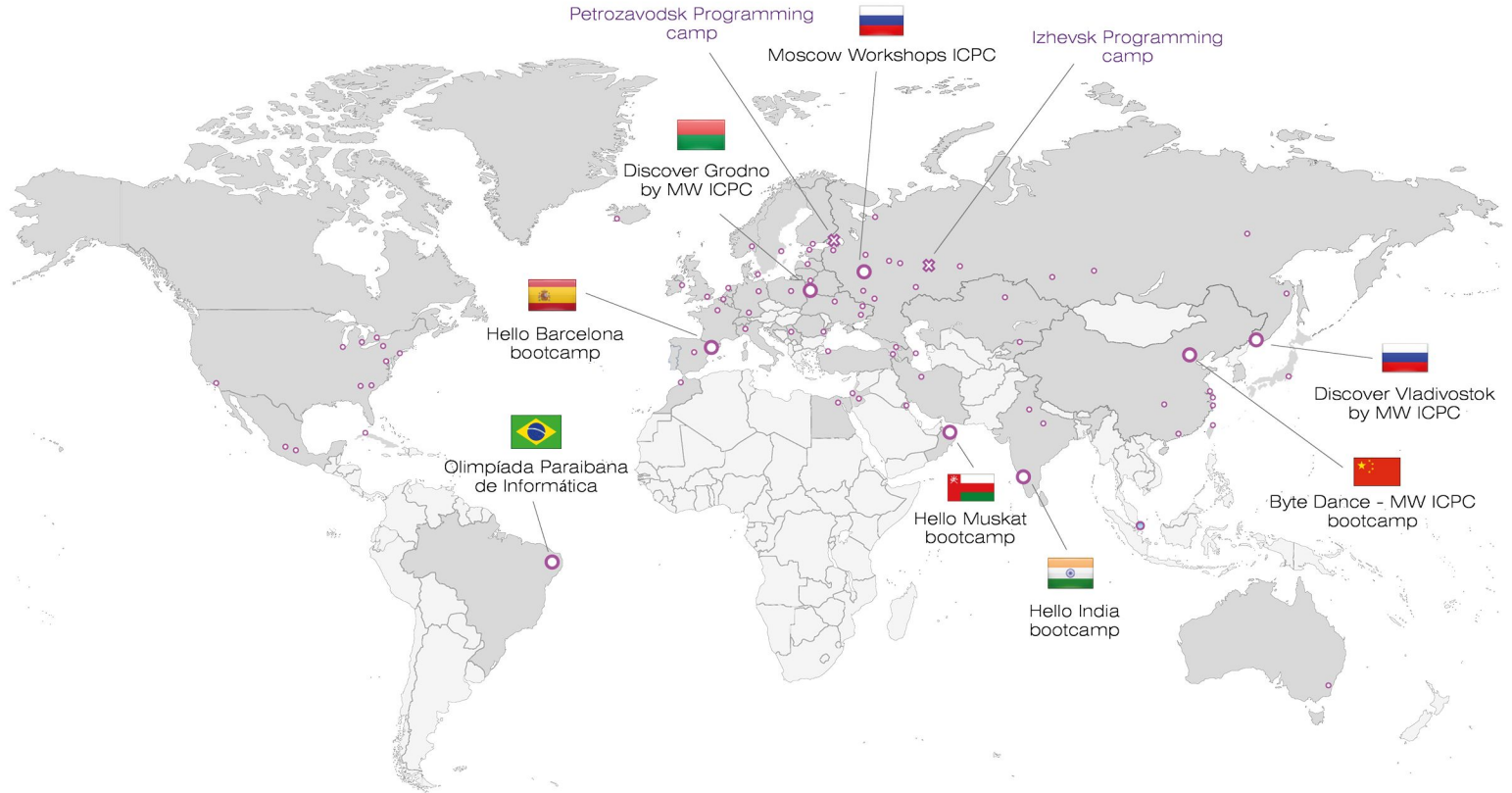
\*distantly

Countries: 15  
 Universities: 14  
 Teams: 50  
 Participants: 150

Countries: 15  
 Universities: 24  
 Teams: 38+2\*  
 Participants: 87

\*distantly

# GEOGRAPHY OF MOSCOW WORKSHOPS ICPC PARTICIPANTS



# PARTICIPATING UNIVERSITIES (203 UNIVERSITIES FROM 55 COUNTRIES)

## Europe (53 universities)

among them:



University College London  
(London, United Kingdom)



University College London Technical  
University of Munich (Munich, Germany)



Utrecht University  
(Utrecht, Netherlands)



University of Helsinki  
(Helsinki, Finland)



Lund University  
(Lund, Sweden)



University of Copenhagen  
(Copenhagen, Denmark)



Ecole Polytechnique  
(Paris, France)

## Moscow (12 universities)

among them:



Lomonosov Moscow  
State University



Moscow Institute of  
Physics and Technology



Higher School of Economics

## Asia (75 universities)

among them:



Tsinghua University  
(Beijing, China)



Seoul National University  
(Seoul, South Korea)



Peking University  
(Beijing, China)



University of Tokyo  
(Tokyo, Japan)



The Chinese University of Hong Kong (Hong  
Kong, China)

## Africa (2 universities)

among them:



Al Akhawayn University in Ifrane  
(Ifrane, Morocco)

## South America (4 universities)

among them:



Universidade Federal do Rio Grande  
do Norte (Natal, Brazil)



Pontifical Catholic University of Rio de Janeiro  
(Rio de Janeiro, Brazil)

## North America (20 universities)

among them:



Massachusetts Institute of Technology  
(Cambridge, USA)



University of Pennsylvania  
(Philadelphia, US)



Cornell University  
(Ithaca, US)



University of Waterloo  
(Waterloo, Canada)

## Russian Regions (36 universities)

among them:



Kazan Federal University  
(Beijing, China)



Saint Petersburg  
State University



Novosibirsk State  
University



ITMO University  
(Saint Petersburg)

## Australia (1 university)

University of New South Wales  
(Sydney)

# NEW INDUSTRIAL PARTNER



ByteDance - Moscow Workshops ICPC Programming Camp, February 2019



ByteDance is a large Chinese Internet technology company operating machine learning-enabled content platforms such as



popular media app for creating and sharing short videos TikTok



**TOU TIAO**

news and information content platform Toutiao (the most expensive startup in the world)

ByteDance estimated market value amounts to 75 billion US dollars

# ICPC WORLD FINALS 2020 IN MOSCOW

More than 1500 people participate in the World Finals: teams, coaches, university representatives, leading IT-companies representatives, guests and teams' fans.



## PROGRAM:

5 days is the duration of the finals

2 days of competition

Business program

Tech-show

Cultural program

(opening and closing ceremonies, sightseeing)

## FINALS BUDGET:

\$ 5 mln

- Participants are accommodated in the best hotels of the city
- Full board meals and guided sightseeing tours are available
- The host provides participants with an exciting program that introduces cultural heritage sites and attractions. Usually participants and guests stay in the city for 2 more days after the official part finishes



# WE ARE EXPERIENCED IN ORGANIZING EVENTS FOR COMPETITIVE PROGRAMMERS



## MOSCOW WORKSHOPS ICPC

Intensive 8-days programs to prepare for ICPC Finals and other programming contest

2200 students  
205 universities  
55 countries

## MOSCOW PROGRAMMING CONTEST

1/8 and 1/4 of ICPC are the most prestigious international student competition in programming

1080 students  
30 universities

## MOSCODE FESTIVAL

Rehearsal of ICPC World Finals held in Moscow

300 participants  
41 universities  
19 countries

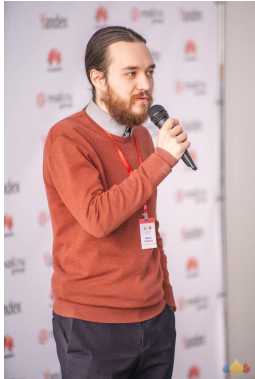


# PLANS FOR THE 2019 SEASON: UNDERTAKEN AND FUTURE WORKSHOPS

Workshop Name	Dates	No of Participants	Level
ByteDance Winter Programming Camp	February 15-23	150	A, B
Moscow ICPC Pre-Finals Workshop 2019	March 9-15	160	A, B
Hello Muscat Programming Bootcamp	March 9-15	87	A, C
<b>Discover Vladivostok 2019</b>	<b>July 6-13</b>	<b>80</b>	<b>A, B/C</b>
Discover Grodno 2019	July 7-14	40	B, C
Discover Baikal 2019	September 7-14	80	C, D
Discover Singapore 2019	September 21-28	100	B, C
Discover Riga 2019	October 5-13	60	A, B/C
Moscow ICPC Fall Workshop 2019	November 5-14	200	A, B



# APPROXIMATE PROGRAM FOR A WORKSHOP (CAMP)



## Day 0-1:

Participants arrivals  
Registration  
Opening Ceremony (Rules and Schedule acceptance)  
Trial tour  
First lectures or contests

## Day 2-3:

Training (lectures, contests, problem analysis)

## Day 4:

Leisure Day  
Sponsor's activities

## Day 5-6:

Training (lectures, contests, problem analysis)

## Day 7-8:

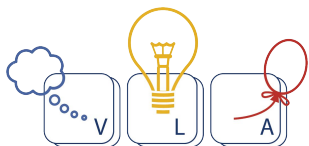
Final Contests  
Closing ceremony (results summary)  
Departures





# CURRICULUM DIVISIONING: PARTICIPANTS' LEVEL OF KNOWLEDGE AND SKILLS

DIVISION A	DIVISION B	DIVISION C	DIVISION D
Team competition	Team competition	Team competition	Personal Credit
Designed to prepare students to participate and win medals in the upcoming ICPC World Finals	Designed to help teams to prepare for regional and international competitions	Designed for freshmen to the world of ICPC competitive programming, who already have teams in their universities	Designed for freshmen to the world of ICPC competitive programming, who haven't created a team yet
Contestants are provided with sets of 8-13 problems for each contest day, 6-9 contests day per each workshop. Each contest day ends up with thorough problems analyses from coaches (instructors)	Participants are provided with lectures on topics of Computer Science relevant for competitive programming, as well as contest materials and problem solutions	Participants are provided with lectures on topics of Computer Science relevant for competitive programming, as well as contest materials and problem solutions	Participants are provided with lectures on topics of Computer Science relevant for competitive programming, basics of algorithms and data structures



**DISCOVER  
Vladivostok**



Moscow Workshops ICPC

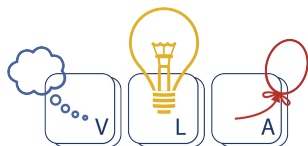


# DISCOVER VLADIVOSTOK 2019 PROGRAMMING WORKSHOP

by Moscow Workshops ICPC  
and the Far East Federal University

Dates:	July 6-13, 2019
No of Participants:	60-90 students
Language:	English
Price:	520-790 USD per person*
Level:	division A, division B/C

\* price depends on accommodation, meals, curriculum, sponsorship, date of payment



**DISCOVER  
Vladivostok**

# DISCOVER VLADIVOSTOK 2019 PROGRAMMING WORKSHOP

by Moscow Workshops ICPC  
and the Far East Federal University



**Moscow Workshops ICPC**

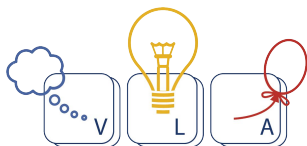
## QUALIFICATION OF APPLICANTS

### **Division C**

Students should have basic skills in solving algorithmic problems, show the knowledge of basic constructions of C/C++ or Java programming languages: arithmetic operators, "for" and "while" loops, functions, classes

The program contains basic and advanced algorithms and data structures: finding shortest paths in weighted graphs, segment trees, finding patterns in text (prefix-function, z-function, tries), dynamic programming in submasks etc





**DISCOVER  
Vladivostok**

# DISCOVER VLADIVOSTOK 2019 PROGRAMMING WORKSHOP

by Moscow Workshops ICPC  
and the Far East Federal University



Moscow Workshops ICPC

## QUALIFICATION OF APPLICANTS

### **Division B**

Students should have a wide-ranging experience in competitive programming and strong skills in data structures

The program contains classic to regional ICPC competitions non-thematic contests as well as lectures and thematic contests of the high level of proficiency. Potentials topics could be max flow algorithms, building of suffix array/tree/automaton, long multiplication and division using Fast Fourier Transformation, persistent data structures etc





**DISCOVER  
Vladivostok**

# DISCOVER VLADIVOSTOK 2019 PROGRAMMING WORKSHOP

by Moscow Workshops ICPC  
and the Far East Federal University

## QUALIFICATION OF APPLICANTS



**Moscow Workshops ICPC**

### **Division A**

Students should have a vast long-term experience in competitive programming, show complete knowledge of algorithms and data structures, be qualified to participate in the ICPC World Finals

The program doesn't include any lectures and consists entirely (or almost entirely) of non-thematic contests of the highest level (the World Finals level and/or ever higher) and their analyses





**DISCOVER  
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# DISCOVER VLADIVOSTOK 2019 PROGRAMMING WORKSHOP

by Moscow Workshops ICPC  
and the Far East Federal University



Moscow Workshops ICPC

## ORGANIZER AND HOST PROVIDE



Meals



Lectures and training  
program



Accommodation



Testing system



Visa support



Entertainment





# WAYS OF COOPERATION WITH US FOR INDIVIDUALS AND COMPANIES



# INTERESTED IN COOPERATION?



**ALEXEY MALEEV**

Founder of Moscow Workshops ICPC;  
Vice-Rector of MIPT



[mw.it-edu.com](http://mw.it-edu.com)



[/moscowicpc](#)



[/moscowicpc](#)

Feel free to contact me!



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