

## Presentation of a Competition in Informatics and IT

**Name of the Competition:** National Collegiate Programming Contest (NCPC)

**Area:** Informatics

**Style of the Competition:**

- A. NCPC is an national annual algorithmic style programming contest organized under rules of ICPC (see the corresponding article) – the contestants have to solve each task with a corresponding program written in one of the programming languages C/C++, Pascal or Java.
- B. NCPC is a competition of teams composed of three undergraduate students of a same University.
- C. NCPC has one round. It is organized each year in May in one of the participating universities nominated previous year by the participants. The participation of teams in NCPC is free of any fee. Each university could participate with as many teams as it will but only the best team of one university is ranked in the official ranking.
- D. Each NCPC-competition is organized in one day. The contestants have to solve 8-10 tasks for five hours.
- E. NCPC needs attendance of the participants at the appointed time and place.
- F. Grading is made by a grading system PC<sup>2</sup> (“PC-Squared”) common for all ICPC contests. During the contest participants are submitting source codes to the system. Each task’s solution is tested with a set of tests that is unknown to the contestants. Unsuccessful submit is qualified in some groups (“compilation error”, “run time error”, “time limit exceeded”, “excessive output”, “formatting error” and “wrong answer of some of tests”) and the qualification is reported to the team by the system. If the program outputs correct (and well formatted) results for all test cases in the preliminary defined time limit then the system assigns one solved task to the team, sends “successful solution” message to the team and saves the time (in minutes) of receiving the correct solution considered from the beginning of the contests. To the time of receiving of correct solution are appended 20 minutes for each wrong submit to obtain the final time for solving the tasks. The teams are ranked by the number of solved tasks. If two or more teams have same number of solved tasks they are ranked by the sum of final times of solved tasks (as smaller is the sum of times as better is ranking of the team).
- G. The Competition Jury of the NCPC is composed of the Coaches of participating universities. The tasks as prepared by Coaches. Task set for the contests is selected from the Jury one day before the contests.
- H. Organizing committee of NCPC is composed of the representatives of the hosting university. It is leaded by a President which is also leading the work of the Jury.
- I. The NCPC contest is each year publicly announced of the web-site of the host university and official invitation is sent to all possible participants (universities with undergraduate programs in Computer Science and related topics)
- J. Tasks and the results (ranking of participating teams) in each NCPC contest are published in the corresponding site. Competitor’s work and author’s solutions of the tasks (source codes or model solutions) was never published officially.
- K. The NCPC contest has no division by any attribute.
- L. All participants in officially ranked teams in NCPC obtain a diploma for the obtained rank. All other participants obtain certificates for participation.

**Target Group:** NCPC is open practically for each university student of undergraduate program in Computer Science and related topics with strong interests in algorithmics. It is important to mention that a student may participate many times in NCPC.

**Age of Participants:** age was never formally fixed. The contestants have to be just enrolled in an undergraduate program (even not necessary to be in Computer science and related topics) of the university they are presenting.

**School level of Participants:** undergraduate College/University students.

**Number of Participants and the number of editions of the competition in the Last Years:**

Year	Teams	Universities	I place	II place	III place
2002	13	9	Sofia Univ.	Plovdiv Univ.	AUBG
2003	17	10	Sofia Univ.	AUBG	Shoumen Univ.
2004	19	11	Sofia Univ.	Plovdiv Univ.	NBU Sofia
2005	25	7	Sofia Univ.	Shoumen Univ.	NBU Sofia
2006	22	9	Sofia Univ.	Shoumen Univ.	Plovdiv Univ.
2007	21	9	Sofia Univ.	Tech. Univ. Sofia	Shoumen Univ.

**History of Competition:** NCPC was created under the name Interuniversity Programming Contest (IUPC) to restore the National Olympiad in Informatics for university students, stopped after the changes in 1989. First three IUPC was organized in 1998, 1999 and 2000 by Kr. Manev in American University in Bulgaria, Blagoevgrad. Next three years hosts of the contest was New Bulgarian University Sofia, Free University Bourgas and Plovdiv University. During the contest in 2003 the participating community decided to declare IUPC an inheritant of Nacional Olympiad in Informatics for university students under the name NCPC. So the contest of 2004 was organized under the name XVI National Collegiate Programming Contest.

**Financial Basis of the competition:** Participation fees of the teams during Regional contests are covered by the universities (the university have to find sponsors if necessary). The host university have to organize the contest and to find corresponding financial support for hall, computers and networking, as well as for some refreshments during the contests and final awarding ceremony (cocktail).

**Competition Problems:** <в отделни файлове са задачите от последните три финални състезания. Повече подробности никога не са публикувани>

**Contact Address of the Organizers, E-mail, Web page(s):**

**President of the next (XXth) NCPC**

Krassimir Manev,  
FMI, Sofia University,  
manev@fmi.uni-sofia.bg

**Sites of last NCPCs**

Trough links in <http://infoman.musala.com>

**Photo Gallery:** not available