The key factor for the international cooperation in the majority of advanced engineering institutions of higher education is development of academic mobility, understood as “transfer of a person somehow engaged in the educational process to another educational institution (in the home country or abroad) for a definite period of time (usually up to one year) to study, teach or research” [5]. Academic mobility is a possibility for students, postgraduate students and young scientists to continue education and to acquire academic experience abroad by participating in short-term educational and research programs. Academic mobility is one of the priority directions of international activity, showing the quality of education at a definite university and in the whole system of professional education. Growing social significance of engineers in the contemporary global context of rapid technological changes and constant innovational processes in industry require engineering university graduates to by flexible and adaptive, to have open mind and be ready for innovations. Besides, future engineer should be able to integrate into global technological network, be mobile and communicate with colleagues all over the world. Therefore social-psychological and communicative competences of future engineers become one of the core factors of their professional performance, alongside with profound engineering knowledge and skills. Development of academic mobility for students, professors and administrative staff became especially important after the principles of the Bologna process have been accepted. The goal is integration into European and international educational environment. The Bologna documentation always includes postulates concerning the importance of academic mobility. The Sorbonne Joint Declaration signed by the four Ministers in charge for France, Germany, Italy and the United Kingdom (Sorbonne, 1998) states: «An open European area for higher learning carries a wealth of positive perspectives, of course respecting our diversities, but requires on the other hand continuous efforts to remove barriers and to develop a framework for teaching and learning, which would enhance mobility and an ever closer cooperation”. It also emphasizes that “At both undergraduate and graduate level, students would be encouraged to spend at least one semester in universities outside their own country. At the same time, more teaching and research staff should be working in European countries other than their own” [2]. The Bologna Declaration puts the following tasks: “Promotion of mobility by overcoming obstacles to the effective exercise of free movement with particular attention to: • for students, access to study and training opportunities and to related services • for teachers, researchers and administrative staff, recognition and valorisation of periods spent in a European context researching, teaching and training, without prejudicing their statutory rights”. Academic mobility is a possibility for students, postgraduate students and young scientists to continue education and to acquire academic experience abroad by means of participation in short-term educational and research program. Academic mobility is one of the priority directions of international activity of all foreign and during the last years of Russian institutions of higher education. Statistical data analysis gives discloses the following

trends in Russia: · “organized” mobility among students (within the framework of interstate agreements and institutional partnership programs, including joint educational programs) is much less developed than “independent” students’ mobility; · the geography of academic mobility is rather specific. If we compare the date concerning international students who come to study in Russia and Russian students who go to study abroad, it becomes evident that the major part of international students come from Asian countries and the former Soviet Union (nowadays the Commonwealth of Independent States) while Russian citizens are eager to go to Europe and North America. This fact can be easily explained by the following: the quality of education, national educational policy aimed at attracting international students, higher living standards, better employment possibilities both in Russia and abroad for young professionals who have European or US degree certificates; · there is an evident disproportion between big universities situated in Moscow and large cities and other educational institutions in Russia. The first group comprises no more than 5% of all Russian institutions of higher education with about 20% of students. Their participation in academic mobility is much higher: approximately half of the Russian students sent to study abroad are from these main universities; and they also accept around 50% of international students. Main Russian universities promote international projects, cooperation, partnership and mobility programs that greatly contribute the increase if graduates’ competiveness: they master foreign languages, can work in various companies, continue their education and acquire PhDs in western universities. Academic mobility programs form a growing-point for a university. Such programs change all the university activity and life: infrastructure, library, rules and regulations, etc. Academic mobility programs promote upgrading qualification of higher-education teaching personnel and administrative staff, modernization of research procedures and management patterns. Kazan National Research Technological University has its own Development plan according to which the university sets up contacts to perform international educational Bachelor and Master degree programs. Conclusion of contracts with partner universities abroad plays an important role in this process. Nowadays a set of educational programs with international participation has been developed: “Chemical and physical modification of high molecular weight compounds”, “Physical and chemical fundamentals of permolecular organized systems innovative technologies”, “Biological nanotechnology”, “Nanostructurized natural and synthetic materials”, “Information management systems and technologies”, “Gas chemical polymer processing technologies”, “Energy-saving and resource-recovery technologies of water treatment and sewage purification”, “Multi-component systems of petrochemical engineering”, “Manufacturing logistics”, “Technology of nanomodified inorganic composite materials and coverings”, etc. Bachelor and Master training will be based on project pragmatist approach with the use of joint aligned programs, shortened study, innovative educational technologies and individual educational plans [6]. Academic mobility is accompanied by a number of problems associated with its

realization such as: development and implementation of individual educational trajectories, creation and development of joint educational programs for several institutions of higher education, sources and mechanisms of financing, status, rules of distribution and recognition of documents, language of teaching and academic communication. The last position is the knowledge of a foreign language and even several foreign languages. Unfortunately it is the weakest link for the majority of Russian students. According to analysis the leading Russian Universities possess real potential for creating a corporate system for inner and international academic mobility, including joint international innovative educational programs. In the European Union partnership educational programs “Tempus” and “Erasmus Mundus” have been successfully implemented for more than two decades. These programs make it possible for Masters and postgraduates to choose appropriate educational trajectories and to perform individual mobility. A lot of joint educational programs suggest distant learning mode: as a rule, international professors either work with Russian students via Internet, or come to Russia for some short time period. Constantly growing space for implementation of joint educational programs between Russian universities and international partners gives an edge to the problem of developing regulatory and legal framework answering the European Norms. For instance nostrification of international Bachelor degree in Russian educational environment may give Russian Universities a wonderful possibility to expand their horizons. Development of the system of quality revalidation also becomes very currently important. Programs that agree with European definition of double degree programs assume generating quality system common for the partner-universities. Active cooperation of Russian universities and their international partners may facilitate implementation of joint educational programs at lower cost and with fewer problems. Modern universities need to pay special attention to arrangement of conditions for students’ and professors’ mobility, stimulate them to do this and organize effective partnership on various levels. Besides for students the possibility to live and study in a different environment, communicate with people from different countries, speak, express views, make presentations and discuss issues in a foreign language develops tolerance, self-confidence and respect for people and cultures. Communicative and intercultural competence is one of the main factors of success in the academic mobility process. Therefore it is impossible to overestimate the importance of development language social skills in the educational process. It is especially challenging for engineering students who generally do not focus at humanities and often have poor communicative skills. In this context language studies and mastering second language on high professional level becomes very important for Bachelors, Masters and professors. It will facilitate not only the process of sending Russian students to study abroad, but also to admit international students to Russian universities. By second language we mean not only English (the main working language for the majority of educational programs), but also languages of the countries where students or teachers go. However linguistic knowledge and

skills are unfortunately the weakest point for the greater part of Russian engineering students. Socio-psychological competence, as an integral personal characteristic, means achievements in relations and interactions between individual with other people which allows resolving social situations efficiently, and choosing and implementing adequate strategies and tactics of interaction and cooperation, as well as self-regulation for the efficient social and professional activity. Socio-psychological competence allows successful achievement of several significant professional goals: adapt to new environment, be ready for inner and international professional mobility; work in teams, efficiently collaborate with peers and have experience in advanced industrial engineering and scientific management of labor; be a good team-leader and manage people and innovations; be self-aware, know personal strengths and weaknesses, manage self-development and life-long learning process; fully fulfill personal power and human resource of the team, etc. It is evident that future global engineer has to possess these characteristics to successfully perform in the challenging innovative environment. An engineer today does not only create or improve machinery and technologies, but also bears responsibility for his activity, thinks about possible positive and negative physical, economical or psychological effects. Due to the global processes a contemporary engineer should be competent not only in his field of knowledge, but also in adjacent spheres, able to correspond to the global quality standards, ready to constant professional and personal growth, socially and professionally mobile. Society is interested in development of socio-psychological competence of engineers. Socio-psychological competence ensures personal maturity, professional efficiency and social success of an engineering university graduate in various spheres of life activity. Contemporary innovative economy causes not only constantly changing state of the market, including labor market, but also new requirements to a college or university graduate. It is understood that institutions of higher education are expected to produce good professionals, experts in a specific professional field. However today it is not enough: graduates should know economical and political processes, be able to evaluate pluses and minuses of real situation and find optimal decisions in solving arising problems [1]. According to opinion polls, there is a list of characteristics that potential employers consider to be the most important for effective professional activity and good adaptation of technical and technological university graduates. This list includes not only professional knowledge and skills, but also personal traits. Among personal traits of an engineer employers mention diligence, devotion and loyalty to the chosen occupation, strive for self-actualization, sociability, eloquence and ability to express oneself correctly, honesty, initiative and enthusiasm, and ability to make decisions. Professional qualities are perfect computer skills, good theoretical professional knowledge, awareness of modern technologies and material, experience in draftsmanship, capacity to work with specifications, technical and regulatory documentation and references, knowledge of foreign languages, etc. According to

inquiry data, employers consider personal qualities to be even more important than specific professional engineering competences [1]. It is reasonable because professional knowledge and skills may be acquired during the lifetime, meanwhile personality is rather stable and rigid and is changing less rapidly. Although personality is a dynamic constantly developing system, student age (18 – 25 years old) is an important period that determines future life trajectory. It is the age of goal-setting, open mind, big ambitions and high intellectual power. Unfortunately modern youths are not always able to disclose their potential and manage their lives. University students as a social group, unlike other young people, are characterized by comparatively high level of motivation for active professional and social performance, strive to efficient fulfillment. Therefore the purpose of university education is not only to provide vocational qualification, but also to prepare student for various social and professional situations, encourage them to develop their personality, create environment for personal growth. Consequently one of the main educational tasks is to built up and develop socio-psychological competence of engineering students as it will actively influence the development of general and special professional competences, establish connections between acquired knowledge and professional practice, help coping with various real professional situations. Socio-psychological competence may be considered as a system of inner resources necessary to make efficient communication in some definite social situations. Therefore it includes both invariant panhuman characteristics and historically and culturally based peculiarities. This fact becomes especially significant in the contemporary context of international cooperation, integration and development of academic and professional mobility. The necessity to develop academic and professional mobility of engineers is determined by innovative nature of modern industry, intrinsic demand for diversification of education and technologies. International cooperation and intercultural contacts require special communicative skills. Alongside with linguistic competence (good knowledge of foreign languages) a contemporary person and professional should have intercultural competence, i.e. be able to communicate successfully with people from different countries and cultures. The system of higher engineering education suggests step-by-step development of multiple components of an engineer’s professional competence. Competences trained at the major are updated and developed while studying minor, becoming core, distinctive competences for a particular engineer [7]. Additional to higher professional education is an effective instrument that may be used within the process of training a specialist. It gives good possibilities for personal and professional development of future engineers. Additional to higher professional education (Russian equivalent of minor courses) suggests a good variant to solve the language problem. Faculties and Departments of additional education at universities give the student possibilities to study English and other languages in depth simultaneously with the basic language course studied in the major. The Faculty of Additional Education (FAE) of the Kazan National Research Technological University suggests a minor program

“Professional translation (English)”. Having graduated from the course the students are able to read, footnote, review and translate original texts in English, have consequential monologue and dialogue speech skills, understand oral speech (monologue and dialogue), actively use most common grammar patterns, speak in public: make reports and speeches, have writing competences for written communication and publications. Learning any second language has not only applied (communicational), but also educational goal, personal and cultural development of a student. Second language acquisition deals with speaking, reading, listening comprehension, writing and translation. All there skills are developed at the language practicums. International cooperation and intercultural contacts require special communicative skills. Alongside with linguistic competence (good knowledge of foreign languages) a contemporary person and professional should have intercultural competence, i.e. be able to communicate successfully with people from different countries and cultures. Intercultural competence is an integral part of communicational competence. It comprises general and specific culturological knowledge; practical communication skills (including psychological and linguistic skills), intercultural psychological sensibility and ethnical tolerance [3,4]. Minor programs for engineering students focus at development of social skills. For instance, the students who study professional translation and interpretation have disciplines “Socio-psychological competence of interpreters” and “Intercultural communication” where they train their communication skills in the situations of cross-cultural interaction and learn to cope with fears and other subjective barriers while interpreting. Learning any second language has not only applied (communicational), but also educational goal, personal and cultural development of a student. Second language acquisition deals with speaking, reading, listening comprehension, writing and translation. All there skills are developed at the language practicums. Having graduated from the course the students are able to read, footnote, review and translate original texts in English, have consequential monologue and dialogue speech skills, understand oral speech (monologue and dialogue), active use most common grammar patterns, be able to speak in public: make reports and speeches, have writing competences for written communication and publications. Regional geography, culturological information, day-to-day realities, and other data are also included into the curriculum. It is not a question of entertaining, but an inner demand of the educational process itself. Students should master the skill of intercultural communication and cultural dialogue. To acquire the personal experience in linguocultural communication students must be put into the situations where they can use the language as an instrument of intercultural perception and cooperation. It should be noted that innovative educational technologies are widely used in the process of teaching English: role-playing games, watching and discussing movies, Power Point Presentations, Internet, Business documentation and Business communication in second language. This approach to solve the language problem by means of additional (minor) educational

programs are broad-based and may be implemented in the majority of engineering universities. Having graduated the additional educational language course the engineering university graduate acquires all the necessary knowledge and competences that he/she may use as a professional translator or interpreter or in his major engineering profession. The graduate may try hand at an international company, become a university teacher or continue education and development abroad. Additional to higher education opens up any of these opportunities and the young person is only to choose the way that will match his goals, ambitions and nature. Opinion pools show that the majority of students study English not because of curiosity, but because they are sure that second language is necessary for their future job and greatly improves employment possibilities. This opinion becomes more and more common as it is necessary to take into consideration that academic mobility is closely connected with professional mobility. Besides, there is a strong tendency to drift between contiguous and sometimes even very different professions during the lifetime. Professional mobility is possible if a person is able to apply his knowledge and skills acquired at the university solving tasks in allied industries and comparatively easily change activities. To increase the external competitiveness of graduates the FAE of the Kazan National Research Technological University introduces courses aimed at development of intercultural competence. Such courses are suggested in the following curriculums: “Professional psychology”, “Human resources”, “Enterprise management” and “Professional translation and interpretation”. Besides there is an option for all the University students to take a 24-hour long group training “Cross-cultural interaction and intercultural communication” at the FAE. Thus being more flexible in curricula and syllabus, additional to higher professional education is an up-to-date response to requirements of changed social, economical and cultural circumstances in Russia. It is hard to overestimate the role of additional professional training at the institutions of higher education.