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УПРАВЛЕНИЕ ДИСТАНЦИОННОГО ОБУЧЕНИЯ И ПОВЫШЕНИЯ КВАЛИФИКАЦИИ

Кафедра «Научно-технический перевод и профессиональная коммуникация»

Учебное пособие

по дисциплине

«Языковая коммуникация в профессиональной сфере на иностранном языке»

Авторы

Бронзова Ж.Е.
Панкова В.В.
Шаповалова Ю.В.

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Аннотация

Учебное пособие предназначено для обучения иностранному языку магистрантов и может быть использовано для подготовки к сдаче зачета в магистратуре. Пособие направлено на обучение коммуникативному чтению, развитию стратегии и навыков чтения аутентичной литературы, умению вести беседу на профессиональную тему, а также на составление аннотирования и реферирования по заданному тексту.

Авторы

Бронзова Ж.Е. – к.пед.н., доцент кафедры «Научно-технический перевод и профессиональная коммуникация»
Панкова В.В. – к.ф.н., доцент кафедры «Научно-технический перевод и профессиональная коммуникация»
Шаповалова Ю.В. – к.ф.н., доцент кафедры «Научно-технический перевод и профессиональная коммуникация»

Оглавление

1 АННОТАЦИЯ

1.1 Аннотация

Аннотация — краткая характеристика научной статьи с точки зрения ее назначения, содержания, вида, формы и других особенностей.

Аннотация должна включать характеристику основной темы, проблемы научной статьи, цели работы и ее результаты. В аннотации указывают, что нового несет в себе данная статья в сравнении с другими, родственными по тематике и целевому назначению.

Аннотация не может заменить оригинал и ее назначение состоит в том, чтобы дать возможность специалисту составить мнение о целесообразности более детального ознакомления с данным материалом. В этом состоит один из существенных моментов отличия аннотации от реферата, который, хотя и в краткой форме, знакомит читателя с сутью излагаемого в первоисточнике содержания.

Требования, предъявляемые к составлению аннотации включают следующее:

1.Лаконичность, т.е. простота и ясность языка текста аннотации, которая, выражается в использовании простых предложений и простых временных форм в активе и пассиве, в отсутствии модальных глаголов и их эквивалентов, в замене сложных синтаксических конструкций простыми и т.д.

2.Логическая структура аннотации выражается в четком делении ее текста на три или четыре составные части.

3.Соответствие форм аннотации, т.е. в тексте аннотации обязательно вводятся безличные конструкции и отдельные слова (например, глаголы высказывания: сообщается о ..., подробно описывается ..., кратко рассматривается ... и т.д.), с помощью которых происходит введение и описание текста оригинала.

4.Точность при переводе заглавия оригинала, отдельных формулировок и определений.

5. Использование общепринятых **сокращений, слов** и т.д.

6. Единство терминов и обозначений.

Аннотации по содержанию и целевому назначению могут быть **справочными, описательными, реферативными, рекомендательными и критическими.**

Справочные аннотации состоят из двух частей: – вводной, включающей название работы на иностранном языке, пере-

вод названия, выходные данные источника (книги, журнала и т.д.), количество страниц, таблиц, рисунков, библиографии; – описательной, включающей сведения относительно назначения оригинала и его новизны. Также приводятся 2-3 отличительных признака оборудования, конструкции механизма и т.д. (его габариты, мощность, скорость и др.).

Описательная аннотация состоит из трех частей: – вводной (аналогично вводной части справочной аннотации); – описательной, которая включает перечень наиболее важных положений по содержанию работы; – заключительной, содержащей один основной вывод, сделанной на основе выводов автора или указания на один какой-то вопрос, которому в работе уделяется особое внимание. Описательные аннотации представляют собой описание материала (т.е. выходные данные и тема), но содержание не раскрывается. Для того, чтобы достигнуть максимальной сжатости материала, достаточно взять основные положения плана статьи и свести их к минимальному количеству пунктов путем обобщения. [3,с.4-6]

Реферативная аннотация строится по следующей схеме: – вводная часть, где либо называется проблема (для научной статьи), либо дан перечень конструктивных особенностей оборудования (для технических материалов); – описательная часть включает либо перечень основных наиболее существенных положений, либо содержит способ действия оборудования; – заключительная часть содержит либо один общий вывод относительно эффективности результатов исследования, либо указывается сфера применения и назначения оборудования. Реферативная аннотация представляет собой очень краткие выжимки из текста оригинала. Они составляются либо на чисто научные статьи, либо на техническую документацию. В реферативной аннотации помимо прочих рубрик дается предельно сжатое и обобщенное содержание источника. Характер изложения в аннотации данного типа отличается от характера изложения в описательной тем, что вместо назывных предложений, из которых состоит описательная аннотация, реферативная аннотация является связным текстом, в котором в предельно сжатом виде передаются выводы по каждому из затронутых в источнике вопросов или по материалу в целом.

Рекомендательные и критические аннотации по структуре напоминают справочные и имеют две части: вводную и описательную, содержащую у рекомендательных аннотаций перечень преимуществ и положительных сторон, а у критических – пере-

чень недостатков и отрицательных сторон.

При составлении аннотаций студентами необходимо обратить их внимание на тот факт, что в аннотации указываются лишь существенные признаки содержания статьи, т.е. те, которые позволяют выявить его научное и практическое значение и новизну, отличить его от других, близких к нему по тематике и целевому назначению.

Более детально рассмотрим реферативное аннотирование.

Реферативное аннотирование имеют следующую **структуру**:

1. Предметная рубрика, где называется область и раздел знаний, к которому относится аннотируемый источник, т.е. более узкая предметная отнесенность статьи. Например: The cutting forces; brittle fracture; yieldstress.

2. Тема статьи. Здесь необходимо указать тему статьи, т.е. о чем статья.

Например:Magnetorheological fluid-based finishing (MRFF) process is the theme of the article.

3. Выходные данные источника. Название статьи, фамилия имя отчество авторов публикации, их ученые звания если имеются; название журнала, номер и год выпуска журнала.

Например: On the effect of relative size of magnetic particles and abrasive particles in MR fluid-based finishing process by V. K. Jain &J. Ramkumar; Machining Science and Technology, An International Journa; Pages 1-14 | Published online: 22 Sep 2017

4. Сжатая характеристика материала. Здесь последовательно перечисляются все затронутые в первоисточнике вопросы: основная тема, проблема научной статьи, цели работы и ее результаты. В аннотации указывают, что нового несет в себе данная статья в сравнении с другими, родственными по тематике и целевому назначению.

Для перевода специализированных материалов и терминов рекомендуем объемные, оснащенные примерами и богатых с точки зрения словарного состава и лексической сочетаемости словари.

1.2 Основные штампы (key-patterns) аннотаций на английском и русском языках

1. The article (paper, book, etc.) deals with…- Эта статья (работа, книга и т.д.) касается…

2. As the title implies the article describes…. - Согласно

названию, в статье описывается…

3. It is specially noted… - Особенно отмечается…

4. A mention should be made… - Упоминается…

5. It is spoken in detail… - Подробно описывается…

6. …are noted - Упоминаются…

7. It is reported… - Сообщается…

8. The text gives a valuable information on…. - Текст дает ценную информацию…

9. Much attention is given to… - Большое внимание уделяется…

10. The article is of great help to … - Эта статья окажет большую помощь…

11. The article is of interest to… - Эта статья представляет интерес для…

12. It (the article) gives a detailed analysis of …. - Она (статья) дает детальный анализ…

13. It draws our attention to…- Она (статья, работа) привлекает наше внимание к…

14. The difference between the terms…and…should be stressed - Следуетподчеркнутьразличиемеждутерминами …и…

15. It should be stressed (emphasized) that… - Следуетподчеркнуть, что…

16. …is proposed - Предлагается…

17. …are examined - Проверяются (рассматриваются)

18. …are discussed - Обсуждаются…

19. An option permits… - Выборпозволяет…

20. The method proposed … etc. - Предлагаемый метод… ит.д.

21. It is described in short … - Кратко описывается …

22. It is introduced …. - Вводится …

23. It is shown that …. - Показано, что …

24. It is given … - Дается (предлагается) …

25. It is dealt with …. - Рассматривается …

26. It is provided for … - Обеспечивается …

27. It is designed for …. - Предназначен для …

28. It is examined, investigated … - Исследуется …

29. It is analyzed … - Анализируется …

30. It is formulated …. - Формулируется …

31. The need is stressed to employ… - Подчеркивается необходимость использования…

32. Attention is drawn to… - Обращается внимание на …

33. Data are given about… - Приведены данные о …

34. Attempts are made to analyze, formulate … - Делаются попытки проанализировать, сформулировать …
35. Conclusions are drawn…. - Делаются выводы …
36. Recommendations are given … - Даны рекомендации …

Образцы клише для аннотаций на английском языке

The article deals with …
As the title implies the article describes ...
The paper is concerned with…
It is known that…
It should be noted about…
The fact that … is stressed.
A mention should be made about …
It is spoken in detail about…
It is reported that …
The text gives valuable information on…
Much attention is given to…
It is shown that…
The following conclusions are drawn…
The paper looks at recent research dealing with…
The main idea of the article is…
It gives a detailed analysis of…
It draws our attention to…
It is stressed that…
The article is of great help to …
The article is of interest to …
….. is/are noted, examined, discussed in detail, stressed, reported, considered.

Задание 1.

1. Прочитайте и переведите текст.

Microcontroller based Automatic Water level Control System

by Ejiofor Virginia Ebere (PhD)[1] , Oladipo Onaolapo Francisca (PhD)[2] Lecturer, Department of Computer Science, Nnamdi Azikiwe University, Awka, Nigeria[1],

Pumps are essential in the water supply field, wooden pumps existed in the 1700s and these were used to empty the bilges of ships. They were made from bored logs with wooden pistons to create suction. Metal piston type pumps, driven by steam, were developed in the early to mid-1800s but it was not until the advent of electrically driven pumps that water system expansion became feasible on a large scale. Layne Bowler developed the first vertical turbine water pumps

in 1894 and Jacuzzi developed the first submersible pumps in the 1920s. These manufacturing developments provided the hardware to allow the establishment of many New Hampshire public water systems in the very late 1800s (Hicks et al., 1971). Automatic water pump controller is a series of functions to control the Automatic Water Pump Controller Circuit in a reservoir or water storage. The water level sensor is made with a metal plate mounted on the reservoir or water tank, with a sensor in the short to create the top level and a detection sensor for detecting long again made for the lower level and ground lines connected to the bottom of reservoirs or reservoir. In everyday life, there must be some physical elements that need to be controlled in order for them to perform their expected behaviours. A control system therefore can be defined as a device, or set of devices, that manages, commands, directs or regulates the behaviour of other device(s) or system(s). Consequently, automatic controlling involves designing a control system to function with minimal or no human interference. Intelligent systems are being used in a wide range of fields including from medical sciences to financial sciences, education, law, and so on. Several of them are embedded in the design of every-day devices. This paper aimed at presenting our project in embedding a control system into an automatic water pump controller. One of the motivations for this research was the need to bring a solution to the problem of water shortage in various places eliminating the major culprit; waste of water during pumping and dispensing into overhead thanks. We believe that creating a barrier to wastage will not only provide more financial gains and energy saving, but will also help the environment and water cycle which in turn ensures that we save water for our future.

Khaled Reza el al., (2010) introduced the notion of water level monitoring and management within the context of electrical conductivity of the water. The authors motivated by the technological affordances of mobile devices and the believe that water level management approach would help in reducing the home power consumption and as well as water overflow; investigated the microcontroller based water level sensing and controlling in a wired and wireless environment. The research result was a flexible, economical and easy configurable system designed on a low cost PIC16F84A microcontroller and finally, proposed a web and cellular based monitoring service protocol to determine and senses water level globally.

A controller based automatic plant irrigation system was designed by Gunturi (2013). The main aim of the research was is to

provide automatic irrigation to the plants with a system that operates with less manpower. This in turn helps to save funds and water. The researcher programmed the 8051 microcontroller as giving the interrupt signal to the sprinkler, and this was used to control the entire system. Temperature sensor and humidity sensor were connected to internal ports of the microcontroller via a comparator, and whenever there is a change in temperature and humidity of the surroundings these sensors senses the change in temperature and humidity and gives an interrupt signal to the micro-controller and thus the sprinkler is activated. It was the position of a paper by Hodgson and Walter () that based on real world systems as the benchmark, using optimization software in place of traditional design techniques results in significant cost savings for both first cost and LCC. The researchers discussed the potentials of modern optimization technology to the pumping industry and presented examples of cost-saving design experiences. Rojiha (2013) analysed this existing oil-pumping system and discovered that they have a high power-consuming process and needs more manual power. He then proposed a sensor network based intelligent control system for power economy and efficient oil well health monitoring. Several basic sensors were used for oil well data sensing, and the sensed data was given to the controller which processed the oil wells data and it was given to the oil pump control unit which controls the process accordingly. If any abnormality is detected then the maintenance manager is notified through an sms via the GSM. This system allowed oil wells tobe monitored and controlled from remote places.n easy way to comply with the conference paper formatting requirements is to use this document as a template and simply type your text into it.

In this work, the microcontroller for the automatic water level monitor with feedback, having passed the necessary tests with the other components interfaced to it, is hereby presented. With this implemented system, it is possible to monitor the water level in an over-head tank, switch on the water pump when the tank is empty and switch off the same pump when the tank is full without any need for human intervention. By so doing, the incidence of water wastage is eliminated and abrupt cut-off of water supply is equally also eliminated. As already highlighted in the previous sections, the microcontroller is the heart of this project work, as all the control signals pass through and are processed by the microcontroller. The LCD was interfaced to the microcontroller in order to display the status of the system as it operates. The LCD data port is connected to the port 2 of the microcontroller (Fig.3) and through this port the

microcontroller is able to send information or instruction codes to the LCD and equally read the contents of the LCD's internal registers. The microcontroller then processes the data received and uses it to control the pump based on the written flow or control algorithm stored in its ROM.

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Задание 2.

Ответьте на вопросы:

а) О чем сообщается?

б) Что подробно описывается?

в) Что кратко рассматривается?

г) Чему уделено особое внимание?

Задание 3.

Составьте описательную аннотацию на базе полученных ответов на вопросы.

Задание 4.

Прочтите текст снова.

Задание 5.

Ответьте на вопросы:

а) В чем суть вопроса (проблемы)?

б) Что собой представляет данная конструкция (метод, технология, понятие, явление)?

в) Каковы особенности (технические характеристики) принципа работы, метода, способа, явления, факта?

г) Каково их назначение и применение?

Задание 6. Проанализируйте полученную информацию.

Сократите всю малосущественную информацию, не относящуюся к теме. Обобщите полученную информацию в единый связный текст. Отредактируйте текст аннотации и сравните с предложенным .

ABSTRACT: Water scarcity is one of the major problems facing major cities of the world and wastage during transmission has been identified as a major culprit; this is one of the motivations for this

research, to deploy computing techniques in creating a barrier to wastage in order to not only provide more financial gains and energy saving, but also help the environment and water cycle which in turn ensures that we save water for our future. We presented our research in embedding a control system into an automatic water pump controller through the use of different technologies in its design, development, and implementation. The system used microcontroller to automate the process of water pumping in an over-head tank storage system and has the ability to detect the level of water in a tank, switch on/off the pump accordingly and display the status on an LCD screen. This research has successfully provided an improvement on existing water level controllers by its use of calibrated circuit to indicate the water level and use of DC instead of AC power thereby eliminating risk of electrocution.

Задание 7.

Переведите данную аннотацию на английский язык, используя клише. Предложите свои выходные данные, напишите, для кого данная статья представляет научный интерес.

В статье приводиться мнение авторов о самой важной технологической инновации за последние 10 лет. Описываются основные свойства такого материала как нанотрубки. Представлены наиболее важные и интересные применения нанотрубок на сегодняшний день. Рассмотрены изменения технологического процесса изготовления нанотрубок.

Задание 8.

Переведите на русский язык. Подчеркните все использованные клише. Выделите

- цель научного исследования;
- описание научной и практической значимости работы;
- описание методологии исследования;
- основные результаты, выводы исследовательской работы.
- ценность проведенного исследования (какой вклад данная работа внесла в соответствующую область знаний);

1) Developing luminescent silver nanodots for biological applications As title implies the article describes Ag spherical nanoparticles used in different biological applications such as drugs delivery, DNA detection, biosensors and other. The mention should be made that silver nanodots creation is typical process of mixing an organic protection group

with silver ions with emission ranging from the near UV to the near IR light. Article gives detailed analysis of photophysics of DNA-encapsulated silver nanodots, synthetic polymer-protected silver nanodots and other scaffolds as well. It draws our attention to silver nanoparticles size requirements, luminescence lifetimes and emission on the surface of silver nanoparticles. It is reported that luminescent silver nanodots are among the strongest emitters, presenting high quantum yields, high molecular extinction coefficients, nanosecond lifetimes and excellent photostability, but retaining reasonable sizes. Current article is of interest to biologists and chemists discovered DNA properties and molecular determination in biological materials. It also could help optician to observe different application of silver nanodots.

2) Modification of Ag containing photo-thermo-refractive glasses induced by electron-beam irradiation The article deals with electron-beam induced silver nanostructures and nanoparticles in special photo-thermo-refractive glasses. It is reported that positive ions of Ag are recombine into neutral atoms and then aggregate into nanoparticles in the glass sample under powerful electron irradiation inside transmission electron microscope. Much attention is given to calculation model of this process to show the amount of energy that absorbs inside the thin films of Ag as well as inside the glass itself. It is also shown that under high density electron irradiation the glass surface is heating to high temperature in the center of the beam. The paper gives valuable information about all physical aspects of metal nanoparticles formation process and considers its possibility and quality of microstructures. It is of great help to optical communication scientists and technicians.

3) SubwavelengthPlasmonicWaveguides and PlasmonicMaterials. This review article is concerned with surface plasmon based photonics materials to show possibility of creation such plasmonic device as plasmonic waveguide with new properties. It should be noted that such process is still kind of obscure and requires precise investigation and research. It is spoken in detail about formation of plasmon-polariton metal surface as a result of extreme light irradiation and transmission through this layers. It is shown that free-electron model could be used for describing plasmon system inside the glass and light distribution through the plasmonic waveguide made of metal nanolayers. The main idea of review article is to study surface plasmons and show opportunity to fabricate standalone devices to plasmonics, assisted by advanced simulation and fabrication tools, emphasizes the integration of plasmonic features into subsystems for all sorts of optical communications and information exchange. This article is of great

help to researches involved into waveguide technologies and plasmonic waveguides devices formation.

Задание 9.

Разбейте аннотацию на следующие части: (background, aims, approach, results, conclusion). Дополните аннотацию недостоющей информацией.

Since the discovery of Tobacco mosaic virus nearly 120 years ago, most studies on viruses have focused on their roles as pathogens. Virus ecology takes a different look at viruses, from the stand point of how they affect their hosts' interactions with the environment. Using the framework of symbiotic relationships helps put the true nature of viruses into perspective. Plants clearly have a long history of relationships with viruses that have shaped their evolution. In wild plants viruses are common but usually asymptomatic. In experimental studies plant viruses are sometimes mutualists rather than pathogens. Virus ecology is closely tied to the ecology of their vectors, and the behavior of insects, critical for transmission of many plant viruses, is impacted by virus–plant interactions. Virulence is probable not beneficial for most host–virus interactions, hence commensal and mutualistic relationships are almost certainly common, in spite of the paucity of literature on beneficial viruses.

Задание 10.

Прочитайте и переведите аннотацию.

The application of emulsion for combined heat extraction and lubrication requires continuous monitoring of the quality of emulsion to sustain a desired grinding environment; this is applicable to other grinding fluids as well. To sustain a controlled grinding environment, it is necessary to adopt an effectively lubricated wheel–work interface. The present work aims to develop a numerical model to replicate the mist formation in minimum quantity lubrication (MQL) grinding using a fluent-based computational fluid dynamics (CFD) flow solver. The MQL parameters considered for this study are air pressure and the mass flow rate. Simulation of the atomization under turbulent conditions was done in a discrete phase model (DPM) owing to the fact that oil mass flow rates are very low and oil acts as a discrete medium in air. Jet velocity and droplet diameters were also obtained under different input conditions to find the optimum value of air pressure and mass flow rate of oil to achieve the desired results (lower cutting force and surface roughness) in MQL grinding of superalloy (Inconel 751). It is

seen that medium size (around 16.3 μm) of droplet plays a significant role in improved performance by the way of reduction in cutting force and surface roughness.

Задание 11.

Составьте из предложенных предложений две аннотации. Переведите на русский язык. Укажите область исследования. Напишитеключевыеслова.

1. The door opens automatically when the right code is entered and remains open for (10 seconds) before closing back.

2. Considering the high rate of crime and insecurity, there is an urgent need to design a security door that takes proper measure to prevent intrusion, unwanted and unauthorized user(s).

3. The variations less than 10% have been found between the measured and corresponding simulated values of the cutting forces.

4. The designed system has been proven to be a reasonable advancement in access control and door security system technology.

5. However, some higher variations have also been observed in the few cases mainly due to heterogeneity and anisotropy of such material.

6. Carbon fiber reinforced polymers (CFRP) have got widely increased applications in aviation, defense and other industries due to their properties of high specific strength/stiffness, high corrosion resistance and low-thermal expansion.

7. This paper presents the design and implementation of microcontroller based security door system (using mobile phone and computer set).

8. The developed models have been found to be robust and can be applied to optimize the cutting forces for such materials at the industry level.

9. The cutting forces are required to be predicted/minimized through modeling.

10. To solve these problems associated with other security doors, the project uses a computer system running on visual basic (6.0), DTMF decoder and microcontroller as its main components to control the door.

11. In this article, the novel axial and feed cutting force model has been developed and validated through rotary ultrasonic slot milling of CFRP composites.

12. The result of these processes led to a security door which can be accessed by entering the corresponding keys of the assigned codes on the mobile phone, or by entering the corresponding code

in a computer set interfaced with the system.

13. Both the forces decreased with the increase of spindle speed, while they increased with the increase of feed rate and cutting depth.

14. The issues like excessive cutting forces and machining damages are encountered in machining due to heterogeneity, anisotropy and low heat dissipation of these materials.

15. The cutting depth is a significant parameter for axial and feed forces, while the feed rate is significant for the axial force.

16. The security door can either receive command through the mobile phone or through the computer system (configured to output data through the parallel port).

Задание 12.

Переведите аннотацию на английский язык.

Предложена методика контроля аварийных ситуаций механической части компрессоров рудных шахт. Показан алгоритм работы технических средств, реализующих методику контроля. Оценены уровни отклонений контролируемых параметров от нормальных значений для конкретного типа турбокомпрессора в различных аварийных ситуациях.

Задание 13.

Переведите аннотацию на русский язык.

Abstract: Every robot system is created and modified so as to be able to perform the required function. Control systems allow for the movement and function of various parts of the robot, as well as execute a specific set of motions and forces in the presence of unforeseen errors. Teamwork is also essential in Robotics. The level of interaction between human and machine decides how versatile and adaptable the robot is. This Paper discusses existing and upcoming types of Control Systems and its implementation in Robotics, and also discusses the role of Artificial Intelligence in Robotics. It also aims to highlight the various issues revolving around Control Systems and the various ways of fixing it.

Задание 14.

Составьте логически аннотацию из предложенных предложений. Принеобходимостииспользуйтеклише.

1. The kinematics model represents the motion of the robot without considering the forces that cause the motion.

2. This article focuses on industrial robotic manipulators and on industrial manufacturing cells built using that type of robots.

3. The dynamics model establishes the relationships between the motion and the forces involved, taking into account the masses and moments of inertia, i.e., the dynamics model considers the masses and inertias involved and relates the forces with the observed motion, or instead calculates the forces necessary to produce the required motion.

4. These topics are considered very important to study and efficient use of industrial robots.

5. The first abstract covers the current practical methodologies for kinematics and dynamics modeling and computations.

Задание 15.

Прочитайте и переведите статью. Составьте реферированное аннотирование.

HARDWARE COMPLEXITY OF MICROPROCESSOR DESIGN ACCORDING TO MOORE'S LAW

Haissam El-Aawar Associate Professor, Computer Science/Information Technology Departments Lebanese International University – LIU, Bekaa – Lebanon haisso@yahoo.com, haissam.aawar@liu.edu.lb

Algorithms' Complexity is regarded as one of the significant measurement, which is appearing along the recent past. Although, there is a rapid development in the algorithmic devices, which involve a computer system as one of their examples; complexity is still occupying a major role in computer design, if it is thought to be oriented towards the hardware or software view.

The development of IC technology and design has been characterized by Moore's Law during the past fifty years. Moore's Law states that the transistor count on a chip would double every two years; applying Moore's law in the design of the microprocessors makes it more complicated and more expensive. To fit more transistors on a chip, the size of the chip must be increasing and/or the size of the transistors must be decreasing. As the feature size on the chip goes down, the number of transistors rises and the design complexity also rises. Microprocessor design has been developed by taking into consideration the following characteristics: performance, speed, design time, design complexity, feature size, die area and others. These characteristics are generally interdependent. Increasing the number of transistors raises the die size, the speed and the

performance of a microprocessor; more transistors, more clock cycles. Decreasing the feature size increases the transistor count, the design complexity and the power dissipation.

Hardware complexity measurement is used to scale the number of elements, which are compounded, along any selected level of hardware processing. Any selected level, includes all the involved structures of hardware appearing beyond a specific apparatus. The hardware complexity measurement id defined as:

A = |E| where, E is the multitude of the elements emerging in a hierarchal structural diagram.

Increasing the number of transistors will be limited due to several limitations, such as increasing the density, the die size, decreasing the feature size, the voltage. Since the surface area of a transistor determines the transistor count per square millimeter of silicon, the transistors density increases quadratically with a linear decrease in feature size. The increase in transistor performance is more complicated. As the feature sizes shrink, devices shrink quadratically in the horizontal and vertical dimensions. A reduction in operating voltage to maintain correct operation and reliability of the transistor is required in the vertical dimension Register R_1, Register R_2, Register R_3, Arithmetic-Logic Unit (ALU) Control Unit Central Processing Unit. This combination of scaling factors leads to a complex interrelationship between the transistor performance and the process feature size. Due to the shrinking of the pixel size and the increasing of the density, the hardware complexity raises. If the pixel size shrinks double and the density increases double every two years according to Moore's Law, the physical limitation will definitely appear in few years, which means that it will be very difficult to apply Moore's Law in the future. Some studies have shown that physical limitations could be reached by 2018 or 2020-2022.

This article suggests, as a solution for avoiding the physical limitations mentioned above, a new approach of constructing a chip with die size that contains free spaces for allowing to apply the Moore's Law for a few years by doubling the number of transistors on a chip without touching the voltage, the feature size and the density, in this case only the hardware complexity will be raised. Let us assume a microprocessor (let's say X) has the following specifications: date of introduction – 2015, one-layer crystal square of transistors, transistor count (number of transistors) – 3 billion, pixel size (feature size) – 0.038 micron, die size (area) – 2400 mm^2: for transistors – 600 mm^2 and free space – 1800 mm^2. In this case the number of transistors will be doubled after two year (2017) without touching the fea-

ture size, die size, voltage and density. In 2017 year a new microprocessor (let's say X_1) will have the following specifications: date of introduction – 2017, one-layer crystal square of transistors, transistor count (number of transistors) – 6 billion, pixel size (feature size) – 0.038 micron, die size (area) – 2400 mm^2: for transistors – 1200 mm^2 and free space – 1200 mm^2 and so on. When the number of transistors would occupied all the free space, the architects can decrease the feature size and increase the density without touching the die size.

The problem of applying Moore's law in microprocessor technology as much as possible is still topical research field although it has been studied by the research community for many decades. The main objective of this article is to find a suitable solution for avoiding physical limitation in manufacturing of microprocessors technology and applying Moore's Law for a long time. As mentioned above, the physical limitations could be reached by 2018 or 2022. Applying the new approach in microprocessor technology will delay the physical limitation for few more years, because it doubles the transistor count every two years based on Moore's Law, with increasing the die size and the hardware complexity, without decreasing of the feature size and increasing of the density.

2 РЕФЕРИРОВАНИЕ

2.1 Реферирование

Реферирование – это процесс переработки и изложения информации в устной, или – чаще в письменной форме.

Реферат – это текст, построенный на основе смысловой компрессии первоисточника с целью передачи его главного содержания.

Реферат, независимо от его типа, имеет единую **структуру**:

1. Предметная рубрика. Здесь указывается область или раздел знания, к которым относится реферируемый материал.

2. Тема реферата, т.е. более узкая предметная соотнесенность источника (совокупность источников, либо тема обзора, проделанного референтом).

3. Выходные данные источника или ряда источников (автор, заглавие, издательство, книга или журнал, место издания). Все данные приводятся сначала на языке источника, и ниже дается их перевод на русский язык.

4. Главная мысль реферируемого материала. Обычно в самом источнике главная мысль становится ясной лишь после прочтения всего материала. В реферате же с нее начинается изложение содержания. Она предшествует всем выводам и доказательствам. Последовательность изложения необходима для того, чтобы с самого начала изложения сориентировать читателя относительно основного содержания источника и его перспективной ценности. Референту необходимо суметь сжато сформулировать главную мысль первоисточника, не внося в нее своих комментариев.

5. Изложение содержания. Содержание реферируемого материала может излагаться в последовательности оригинального текста по главам, разделам, параграфам. Обычно дается формулировка вопроса, приводится вывод по этому вопросу и необходимая цепь доказательств в их логической последовательности. В этом случае, как правило, для обеспечения связности ключевых фрагментов заимствуются соединительные фразы, союзные слова и обороты речи из первоисточника. Но логика изложения в реферате может не совпадать с логикой изложения оригинала. Тогда референт вводит в текст реферата союзные слова и так называемые переходные элементы (например, "но", "однако" и т.д.), отсутствующие в исходном материале. Иногда переходные элемен-

ты выступают не в виде конструктивных элементов, а полнозначных слов и целых предложений. Введение в сокращенный текст отсутствовавших ранее элементов помогает как бы "проявить" смысл, эксплицировать те мотивы и смысловые отношения, которые в оригинале были имплицированы.

6. Выводы автора по реферируемому материалу. Следует иметь в виду, что иногда выводы автора не вполне соответствуют главной мысли первоисточника, так как могут быть продиктованы факторами, выходящими за пределы излагаемого материала. Но в большинстве случаев выводы автора вытекают из главной мысли источника, поэтому выявление главной мысли помогает понять и выводы автора. Если выводы автора в оригинале отсутствуют, то этот пункт реферата отпадает.

7. Комментарий референта. Этот пункт реферата имеет место лишь в случаях, когда референт является достаточно компетентным по данному вопросу и может внести квалифицированное суждение о реферируемом материале. В комментарий входит критическая характеристика первоисточника, актуальность освещенных в нем вопросов, суждение об эффективности предложенных решений, указания, на кого рассчитан реферируемый материал и кого он может заинтересовать в нашей стране.

2.2 Фразы для реферирования

The title of the article is…

The paper under discussion is devoted to…

The article deals with, (is concerned with, covers, considers, gives consideration to, describes, gives an accurate description of, outlines, emphasizes, places emphasis on) the problem of...

The paper provides the reader with some data on... (some material on..., some information on..., an introduction to..., a discussion of..., a treatment of..., a study of..., a summary of..., some details on..., a useful bibliography, a list (set) of references).

A careful account is given of... A detailed description is given of the theory (problem). A thorough description is given of... Much attention is given to... Little attention is given to...

Of particular (special, great, little) interest is the technique of... Of particular interest is the theory (discussion, treatment) of...

It is notable (noteworthy) that...

It is stressed (emphasized, underlined, etc.) that... Of special interest/importance is the fact that...

It is essential that...

It is particularly important / interesting that...
It is of great interest / significance / importance that...
It should be noticed that...
It is to be noted that...

Название статьи, автор, стиль.

The article I'm going to give a review of is taken from… — Статья, которую я сейчас хочу проанализировать из…
The headline of the article is — Заголовок статьи…
The author of the article is… — Автор статьи…
It is written by — Она написана…
The article under discussion is … — Статья, которую мне сейчас хочется обсудить, ….
The headline foreshadows… — Заголовок приоткрывает

Логические части.

The topic of the article is… — Тема статьи
The key issue of the article is… — Ключевым вопросом в статье является
The article under discussion is devoted to the problem… - Статью, которую мы обсуждаем, посвящена проблеме…
The author in the article touches upon the problem of… — В статье автор затрагивает проблему….
I'dlike to make some remark sconcerning… — Я бы хотел сделать несколько замечаний по поводу…
I'd like to mention briefly that… — Хотелось бы кратко отметить…
I'd like to comment on the problem of… — Я бы хотел прокомментировать проблему…
The article under discussion may be divided into several logically connected parts which are… — Статья может быть разделена на несколько логически взаимосвязанных частей, таких как…

Краткое содержание.

The author starts by telling the reader that — Автор начинает, рассказывая читателю, что
At the beginning of the article the author — В начале статьи автор
describes — описывает
depicts — изображает
touches upon — затрагивает
explains — объясняет

introduces — знакомит
mentions — упоминает
recalls -вспоминает
makes a few critical remarkson — делает несколько критических замечаний о
The author begins (opens) with a (the)
description of — описанием
statement — заявлением
introduction of — представлением
the mention of — упоминанием
the analysis of a summary of — кратким анализом
the characterization of — характеристикой
(author's) opinion of — мнением автора
author's recollections of — воспоминанием автора
the enumeration of — перечнем
In conclusion the author
dwells on — останавливается на
point out — указывает на то
generalies — обобщает
reveals — показывает
exposes — показывает
gives a summary of –дает обзор

Отношение автора к отдельным моментам.

The author gives, full coverage to… — Автор дает, полностью охватывает…

The author outlines… — Автор описывает

The article contains the following facts…/ describes in details… — Статья содержит следующие факты …. / подробно описывает

The author starts with the statement of the problem and then logically passes over to its possible solutions. - Автор начинает с постановки задачи, а затем логически переходит к ее возможным решениям.

The author asserts that… — Автор утверждает, что …

The author resorts to … to underline… — Авторприбегаетк …, чтобыподчеркнуть …

Let me give an example… — Позвольте мне привести пример …

Вывод автора.

In conclusion the author says / makes it clear that…/ gives a warning that… — Взаключениеавторговорит / проясняет, что … / даетпредупреждение, что …

At the end of the article the author sums it all up by saying … — Вконцестатьиавторподводититогвсегоэтого, говоря …

The author concludes by saying that.../ draws a conclusion that / comes to the conclusion that — В заключение автор говорит, что …/ делает вывод, что / приходит к выводу, что

6. Выразительные средства, используемые в статье.

To emphasize … the author uses… - Чтобы акцентировать внимание … автор использует

To underline … the author uses… Чтобы подчеркнуть … автор использует

To stress… — Усиливая

Balancing… — Балансируя

Вывод.

Taking into consideration the fact that — Принимая во внимание тот факт, что

The message of the article is that /The main idea of the article is — Основная идея статьи (посланиеавтора)

In addition… / Furthermore… — Крометого

On the one hand…, but on the other hand… — Соднойстороны …, носдругойстороны …

Back to our maint opic… - Вернемся к нашей основной теме

To come back to what I was saying… - Чтобы вернуться к тому, что я говорил

In conclusion I'dlike to… — В заключение я хотел бы …

From my point of view… — Смоейточкизрения …

As far as I am able to judge… — Насколько я могу судить.

My own attitude to this article is… — Моеличноеотношениек

I fully agree with /I don't agree with - Я полностью согласен с/ Я не согласен с

It is hard to predict the course of events in future, but there is some evidence of the improvement of this situation. - Трудно предсказать ход событий в будущем, но есть некоторые свидетельства улучшения.

I have found the article dull / important / interesting /of great value - Я нахожу статью скучной / важной/ интересной/ имеющую большое значение (ценность)

Прочитайте текст.

HARDWARE COMPLEXITY OF MICROPROCESSOR DESIGN ACCORDING TO MOORE'S LAW

Haissam El-Aawar Associate Professor, Computer Science/Information Technology Departments Lebanese International University – LIU, Bekaa – Lebanon haisso@yahoo.com, haissam.aawar@liu.edu.lb

Algorithms' Complexity is regarded as one of the significant measurement, which is appearing along the recent past. Although, there is a rapid development in the algorithmic devices, which involve a computer system as one of their examples; complexity is still occupying a major role in computer design, if it is thought to be oriented towards the hardware or software view.

The development of IC technology and design has been characterized by Moore's Law during the past fifty years. Moore's Law states that the transistor count on a chip would double every two years; applying Moore's law in the design of the microprocessors makes it more complicated and more expensive. To fit more transistors on a chip, the size of the chip must be increasing and/or the size of the transistors must be decreasing. As the feature size on the chip goes down, the number of transistors rises and the design complexity also rises. Microprocessor design has been developed by taking into consideration the following characteristics: performance, speed, design time, design complexity, feature size, die area and others. These characteristics are generally interdependent. Increasing the number of transistors raises the die size, the speed and the performance of a microprocessor; more transistors, more clock cycles. Decreasing the feature size increases the transistor count, the design complexity and the power dissipation.

Hardware complexity measurement is used to scale the number of elements, which are compounded, along any selected level of hardware processing. Any selected level, includes all the involved structures of hardware appearing beyond a specific apparatus. The hardware complexity measurement id defined as:

A = |E| where, E is the multitude of the elements emerging in a hierarchal structural diagram.

Increasing the number of transistors will be limited due to several limitations, such as increasing the density, the die size, decreasing the feature size, the voltage. Since the surface area of a transistor determines the transistor count per square millimeter of

silicon, the transistors density increases quadratically with a linear decrease in feature size. The increase in transistor performance is more complicated. As the feature sizes shrink, devices shrink quadratically in the horizontal and vertical dimensions. A reduction in operating voltage to maintain correct operation and reliability of the transistor is required in the vertical dimension Register R_1, Register R_2, Register R_3, Arithmetic-Logic Unit (ALU), Control Unit, Central Processing Unit. This combination of scaling factors leads to a complex interrelationship between the transistor performance and the process feature size. Due to the shrinking of the pixel size and the increasing of the density, the hardware complexity raises. If the pixel size shrinks double and the density increases double every two years according to Moore's Law, the physical limitation will definitely appear in few years, which means that it will be very difficult to apply Moore's Law in the future. Some studies have shown that physical limitations could be reached by 2018 or 2020-2022.

This article suggests, as a solution for avoiding the physical limitations mentioned above, a new approach of constructing a chip with die size that contains free spaces for allowing to apply the Moore's Law for a few years by doubling the number of transistors on a chip without touching the voltage, the feature size and the density, in this case only the hardware complexity will be raised. Let us assume a microprocessor (let's say X) has the following specifications: date of introduction – 2015, one-layer crystal square of transistors, transistor count (number of transistors) – 3 billion, pixel size (feature size) – 0.038 micron, die size (area) – 2400 mm^2: for transistors – 600 mm^2 and free space – 1800 mm^2. In this case the number of transistors will be doubled after two year (2017) without touching the feature size, die size, voltage and density. In 2019 year, a new microprocessor (let's say X_1) will have the following specifications: date of introduction – 2019, one-layer crystal square of transistors, transistor count (number of transistors) – 6 billion, pixel size (feature size) – 0.038 micron, die size (area) – 2400 mm^2: for transistors – 1200 mm^2 and free space – 1200 mm^2 and so on. When the number of transistors would occupied all the free space, the architects can decrease the feature size and increase the density without touching the die size.

The problem of applying Moore's law in microprocessor technology as much as possible is still topical research field although it has been studied by the research community for many decades. The main objective of this article is to find a suitable solution for avoiding physical limitation in manufacturing of microprocessors technology

and applying Moore's Law for a long time. As mentioned above, the physical limitations could be reached by 2018 or 2022. Applying the new approach in microprocessor technology will delay the physical limitation for few more years, because it doubles the transistor count every two years based on Moore's Law, with increasing the die size and the hardware complexity, without decreasing of the feature size and increasing of the density.

2.3 Пример реферирования текста.

The title of the article is Hardware complexity of microprocessor design according to Moore's Law. The text deals with algorithms' complexity. The author of the text touches upon the problem of applying Moore's law in microprocessor technology. The main objective of this article is to find a suitable solution for avoiding physical limitation in manufacturing of microprocessors technology and applying Moore's Law for a long time. The prime target of the author is to show in the near further the microprocessor design. The author begins his text with the statement that algorithms' complexity is regarded as one of the significant measurement, which is appearing along the recent past and continues with the facts about microprocessor's characteristics and how to measure the hardware complexity. The author starts with the statement of the problem and then logically passes over to its possible solutions. At the end of the article the author sums it all up by saying about the new approach in microprocessor technology, with will delay the physical limitation for few more years, because it doubles the transistor count every two years based on Moore's Law, with increasing the die size and the hardware complexity, without decreasing of the feature size and increasing of the density. It is hard to predict the course of events in future, but there is some evidence of the improvement of this situation. I have found the article important and interesting.

Задание 16.

Прочитайте, переведите. Сделайте письменное реферирование текста.

Scientists at The University of Manchester have created the world's first 'molecular robot' that is capable of performing basic tasks including building other molecules.

The tiny robots, which are a millionth of a millimetre in size, can be programmed to move and build molecular cargo, using a tiny robotic arm.

Each individual robot is capable of manipulating a single molecule and is made up of just 150 carbon, hydrogen, oxygen and nitrogen atoms. To put that size into context, a billion billion of these robots piled on top of each other would still only be the same size as a single grain of salt.

The robots operate by carrying out chemical reactions in special solutions which can then be controlled and programmed by scientists to perform the basic tasks.

In the future such robots could be used for medical purposes, advanced manufacturing processes and even building molecular factories and assembly lines. The research will be published in **Nature** on Thursday 21st September.

Professor David Leigh, who led the research at University's School of Chemistry, explains: 'All matter is made up of atoms and these are the basic building blocks that form molecules. Our robot is literally a molecular robot constructed of atoms just like you can build a very simple robot out of Lego bricks. The robot then responds to a series of simple commands that are programmed with chemical inputs by a scientist.

'It is similar to the way robots are used on a car assembly line. Those robots pick up a panel and position it so that it can be riveted in the correct way to build the bodywork of a car. So, just like the robot in the factory, our molecular version can be programmed to position and rivet components in different ways to build different products, just on a much smaller scale at a molecular level.'

The benefit of having machinery that is so small is it massively reduces demand for materials, can accelerate and improve drug discovery, dramatically reduce power requirements and rapidly increase the miniaturisation of other products. Therefore, the potential applications for molecular robots are extremely varied and exciting.

Prof Leigh says: 'Molecular robotics represents the ultimate in the miniaturisation of machinery. Our aim is to design and make the smallest machines possible. This is just the start but we anticipate that within 10 to 20 years molecular robots will begin to be used to build molecules and materials on assembly lines in molecular factories.'

Whilst building and operating such tiny machine is extremely complex, the techniques used by the team are based on simple chemical processes.

Prof Leigh added: 'The robots are assembled and operated using chemistry. This is the science of how atoms and molecules react

with each other and how larger molecules are constructed from smaller ones.

'It is the same sort of process scientists use to make medicines and plastics from simple chemical building blocks. Then, once the nano-robots have been constructed, they are operated by scientists by adding chemical inputs which tell the robots what to do and when, just like a computer program.'

3 PRESENTATION

3.1 Presentation Structure

Every public speech (presentation) needs a subject and a purpose. Before you can begin gathering and organizing information for your speech, you must select a topic and clearly understand its purpose. For example, your purpose might be to inform people about an unfamiliar subject, or to persuade them to change their opinion about an issue. The main purpose of speaking to inform is to present information to an audience so that they will understand and remember it. Your goal in making an informative talk is to state your ideas as simply and as clearly as possible. The major purpose of a persuasive speech is to get others to change their feelings, beliefs, or behavior. Your goal in making a persuasive speech is to convince your listeners to do what you want them to do or to change their opinion about something to agree with your. Presentations need to be very straightforward and logical. It is important that you avoid complex structures and focus on the need to explain and discuss your work clearly. Think about how you will organize your content. Your presentation should have a clear, coherent structure and cover the points you wish to make in a logical order. Because an audience cannot turn back the page and check what you wrote, it is very easy for them to lose the thread of your spoken argument. Structure is therefore even more important in presentations than it is in written reports, and needs to be emphasized at frequent intervals. The old advice "tell them what you are going to say, say it, and then tell them what you have said" still holds good.

An ideal structure for a presentation includes:

- a welcoming and informative introduction;
- a coherent series of main points presented in a logical sequence;
- a lucid and purposeful conclusion. It is possible to break these three broad sections down further.

Introductory Section

The introduction is the point at which the presenter explains the content and purpose of the presentation. This is vitally important part of your talk as you will need to gain the audience's interest and confidence. Use the introduction to welcome your audience, explain your objectives, introduce your topic/subject, indicate the main points you will be making and how you will structure these, provide guide-

lines on questions, say how long you will be talking for.

Key elements of an effective introduction include:

• a positive start: "Good afternoon, my name is …" (who)

• a statement of what will be discussed: "I'm going to explore …" (why)

• a statement of the treatment to be applied to the topic (e.g. to compare, contrast, evaluate, describe): "I'll be comparing the four main principles of…" (what)

• a statement of the outcomes of the presentation: "I hope this will provide us with …" (why)

• a statement of what the audience will need to do (e.g. when they can ask questions or whether or not they will need to take notes): "I'll pass round a handout that summarizes my presentation before taking questions at the end". (how)

Experts in communication say that the first three minutes of a presentation are the most important. They talk about "hooks" – simple techniques for getting, the immediate attention of the audience.

Here's how the experts suggest you get the immediate attention of the audience:

1. Give them a problem to think about.
2. Begin your speech with some amazing facts.
3. Give them a story or personal anecdote.
4. Begin your speech with a well-known quotation.
5. Address the audience's needs and concerns by telling them what benefits they will gain from listening to you.
6. Ask something and then go on to answer it yourself.

Main section (the body of your presentation).

Now that your listeners know exactly what you are going to talk about or what your specific persuasive topic is it is time to present your information or present support and evidence which will convince them to agree with you. Be sure to present the main parts of your speech just the way you said you would. The sequence of your main points should be directly influenced by the purpose of your presentation. Always remember that the aim is to communicate issues in manageable sections or building blocks, helping the audience to piece their understanding together as you work through your material. After you have identified your main points, you should embellish them with supporting information. For example, add clarity to your argument through the use of diagrams, illustrate a link between theory and practice, or substantiate your claims with appropriate data. Use the supporting information to add colour and interest to your talk, but

avoid detracting from the clarity of your main points by overburdening them with too much detail. Make your presentation easy to comprehend by using sequence words (firstly, finally, etc.) Use them to connect your ideas and give structure to the whole argument. When presenting orally, you will need to give additional pointers to internal structure within your main body. When you have finished dealing with one point, signal this by a brief summary, of the point just made, and then a short statement of the point you are about to start. You can do this easily and effectively, using simple phrases as "signposts" (transitions or sequencers) to help the audience negative their way through your presentation. They can help divide information up into subsections,link different aspects of your talk and show progression through your topic. Importantly, transitions draw the audience's attention to the process of the presentation as well as the content.

Conclusion

The conclusion is an essential though frequently underdeveloped section of a presentation. This is the stage at which you summarize your key points and purpose of your talk, again using visual aids if appropriate, emphasize your recommendations or conclusion, thank your audience, and invite questions. The summary should not be too long as you will lose your audience's attention, but detailed enough to cover your points. A good summary reminds your audience about what you said and helps them to remember your information. After a summary, you are ready to conclude with a statement that will leave your audience thinking about what you said. Never end abruptly or by saying "That's all".

The final words of your speech are the ones your audience will remember. Important elements of a conclusion are:

- A review of the topic and purpose of your presentation: ''In this presentation I wanted to explore ….''
- A statement of the conclusions or recommendations to be drawn from your work: "I hope to have been able to show that the effect of …"
- An indication of the next stages (what might be done to take this work further?): "This does of course highlight the need for further research in the area of …"
- An instruction as to what happens next (questions, discussion or group work): "I would now like to give you the opportunity to ask questions …"
- A thank-you to the audience for their attention and participation: "Thank you very much for listening". The techniques for conclud-

ing speeches are the same as those for beginning speeches.

Putting your speech together

The question is "which part of a speech do you prepare first?" You should begin with the body of your speech. After the body is prepared, you should write the conclusion, and finally the introduction. Step one: Preparing the Body of Your Speech. The body of your speech will contain the outline of the major ideas you want to present. It will also have the evidence or information that supports and clarifies your ideas.

First: List the main headings or subtopics related to your subject. Write down the main headings which might be included in your speech. Write them as you think of them. Some ideas will be important, some will be insignificant. At this time, just concentrate on writing all the ideas you can think of that relate to the subject and purpose of your speech.

Second: Narrow down your list of main headings. Review your list of main headings carefully. Your goal should be to come up with three of four main headings that will develop the subject and purpose of your speech. The bad presentations are where people have tried to give too much information in too much detail and taken too long over it.

Third: Order your main headings logically. Try to organize your main headings so that each major point leads naturally into the next one. For example, if your speech were entitled "Applying for a Job", you would not talk about the actual interview before discussing the need for a résumé. A more logical order of main headings might be:

1. Finding the Desired Position
2. Writing a Résumé
3. Scheduling Appointments
4. Behavior

During the Personal Interview Fourth: Develop Your Main Headings. The main headings are the skeleton upon which your speech will be built. You must develop and support them. If the main headings are properly supported by factual information, logical proof, and visuals, your audience will understand and remember your speech.

Step Two: Preparing the Conclusion of Your Speech. When you have finished dealing with the main body, signal clearly that you are now ready to finish your presentation. Make sure you give a clear logical finish making your summary, giving your conclusion and making your closing remarks. Your conclusion section should follow naturally from your main body.

Step Three: Preparing the Introduction to Your Speech. This is a crucial part of your presentation. It serves as a useful orientation to the reader.

Outlining

When you have gathered enough information to prepare the introduction, body and conclusion of your presentation, you are ready to organize it through the use of an outline – that is, a detailed plan of your presentation.

1. The purpose of an outline
2. An outline assures that you have organized your ideas.
3. An outline helps you remember all your information.
4. An outline makes it easy for you to deliver your speech.
5. An outline helps you to stick to the subject of your speech.

3.2 Preparing an outline

When you write an outline, you list very briefly and in the proper order the ideas you wish to include in your presentation. Then, you write the presentation following the outline. If your outline is well arranged, your presentation will be well arranged. The key to outlining is to identify main topics and break them down into subtopics.

A good outline meets three basic requirements:

1. Each idea must relate to and help prove the main point.
2. Each unit of the outline should contain only one idea.

Ideas should not be repeated or overlap each other (express the same ideas). For topic division, use Roman numerals (I, II, III, and so forth). For subdividing a topic, use capital letters, (A,B,C, and so forth, indenting them evenly. If you want to subdivide still more, use Arabic numerals (1,2,3, and so forth) and indent again. For even more subdivision, indent again and use lower-case letters (a,b,c, and so forth). Place a period after each number of letter.

Задание17.

Read the presentation and answer these questions:

1. What is the purpose of the presentation?
2. When will the presenter answer the questions?
3. Which of the phrases below does the presenter use to…

a) explain the purpose of the presentation (Why)
b) describe the structure of the presentation (What)

Presentation. Good morning, ladies and gentlemen.

I'm here today to tell you about programming a microcontroller.

I've divided my presentation into four parts. Firstly, I want to talk about the function of microcontrollers in our life.

Secondly, gives a detail for programming for microcontroller.

Thirdly, I'll presents enhancements of automatic programmer and the use of this extension.

Finally, I'll presents a calculator case study using enhanced automatic programmer and conclusions of the work.

I'll be happy to answer questions at the end of my presentation.

Right. I'd like you to look at this graph …

My work aims to extend the automatic programmer tool that generates mikroC code and its hex file from a block diagram.

Задание 18.

Cross out the verbs which do not fit in the following presentation extracts.

1.Perhaps I should start off by pointing/stressing/reminding that this is just a preliminary report. Nothing has been finalized as yet.

2.I'd like to draw/focus/attract your attention on the short-term objectives to begin with.

3.Basically, what we're suggesting/asking/reviewing is a complete reorganization of staff and plant.

4.I'm sure there's no need to draw out/spell out/think out what the main problem is going to be.

5.The basic message I'm by trying to get through/get across/get to here is simple. We can't rely on government support for much longer.

6.Disappointing end-of-year figures underline/undermine/underestimate the seriousness of the situation.

7.But later on I will, in fact, be putting over/putting forward/putting out several detailed proposals.

8.One thing I'll be dealing with/referring/regarding is the issue of a minimum wage.

9.And I'll also be asking/raising/putting the question of privatization.

10.But we do need to seriously ask/answer/address the question of how we are going to overcome it.

Задание 19.

Complete the following sentences with the correct word.

1. First of all, I'd like to … the main points of my talk.
a) preview b) overview c) outline

2. So, what we're really … are likely developments in the structure of the integrated circuit over the next five to ten years.
a) driving at b) aiming at c) looking at

3. The eighteen-month plan, which by now you should have all had time to look at, … in detail our main conclusions.
a) outlines b) reviews c) sets out

4. And the main conclusion we've … is that QL-PROGen is integrated to burn the created hex file in the microcontroller and the same can be pre-simulated within this enhanced tool.
a) thought b) got to c) come to

5. I'd like to … yours attention to some of the difficulties we're likely to face.
a) turn b) draw c) focus

6. I have the figures for the last three months to … to you.
a) have b) introduce c) present

7. I've tried to … our difficulties into some kind of perspective.
a) putb) fill c) bring

8. I'm going to be … at the arguments against networking.
a) showing b) telling c) looking

Задание 20.

Write down a possible phrase or sentence for each of the following. Use the words provided in brackets.

Example: You are a student from DSTU. Not everyone knows you. How do you introduce yourself at the beginning of a presentation?

(I'm …) Good afternoon ladies and gentelmem. My name is Ivanov Sergey.

1. How can you greet the audience? (coming) ……

2.You want to get everyone's attention so that you can start your meeting. What can you say? (here/begin)

…….

3. You have handouts that you want to give people. What can you say? (take) …….

4. In your presentation, you plan to explain the problems of the old IT system and then present the new system. How can you explain what you are going to do? (First/After that) ……

5. How can you tell your listeners that there will be time for questions at the end? (plan/leave)

Задание 21.

Fill the gaps in the sentences below with a preposition: on at on by for in into through.

1. Thank you … coming.
2. I'd like to start … outlining the changes.
3. Then I'll go … to highlight what I see as the main points.
4. I'll start off by filling you … on the background to…
5. I've tried to put our recent difficulties … some kind of perspective.
6. We can discuss any questions … the end.
7. I want to focus … the five year plan.
8. I'll go … the main points on the handout. [1,c.25-30]

Структура презентации

Title page The 1st slide	The names of a university/college, and a department The title of the project proposal, The name of the author and research supervision The city/town, year
Introduction The 2-5th slides	The brief abstract The background of the study(justification, definitions and explanations of the terms or key concept) The problem statement(delimitations and scope) The professional significance(aims and objectives) (up to 6-7 sentences)
Main body 6-12 th slides	Theoretical literature and the empirical research Methodology The brief report on the results anticipated (up to 8 sentences)
Conclusion 13th slide	The brief summary Acknowledgements(if necessary) (up to 4 sentences)
References	if necessary

Some Phrases for Academic Presentations

Introduction (after greeting the audience and introducing yourself or being introduced)

The subject/topic of my presentation today will be …

Today I would like to present recent result of our research on …

What I want to focus on today is …

Outlining the structure of the presentation

I will address the following three aspects of …

My presentation will be organized as can be seen from the following slide.

I will start with a study of…

Next, important discoveries in the field of … will be introduced.

Finally, recent findings of … will be discussed.

Introducing a new point or section

Having discussed …, I will now turn to …

Let's now address another aspect.

Referring to visual aids

As can be seen from the next slide/diagram/table …

This graph shows the dependency of … versus …

The following table gives typical values of …

In this graph we have plotted … with …
Concluding/summarizing
Wrapping up …
To summarize/sum up/conclude …
Inviting questions
Please don't hesitate to interrupt my talk when questions occur.
I'd like to thank you for your attention.
I'll be happy/pleased to answer questions now.
Dealing with questions
I cannot answer this question right now, but I'll check and get back to you.
Perhaps this question can be answered by again referring to/looking at table
Hmm, that's a good question. I don't have the information to answer that question right now, but I'd be happy to find out and get back to you later.
I don't think we have enough time to go into that right now, but I'll be happy to speak to you one-to-one after the presentation if you would like. That's an interesting point, but I do think I have shown that

Задание 22.

Прочитай текст. Сделайте презентацию по данному тексту. Сравните с представленной ниже презентации.

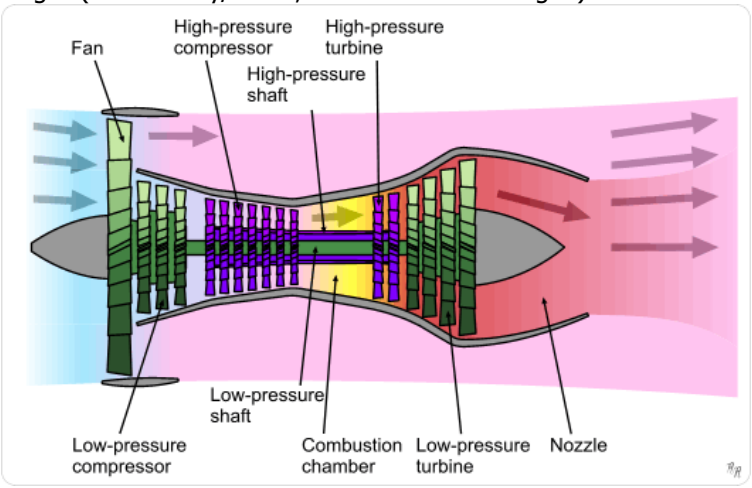
In the turbofan aero engine, which is used to power large planes, air is propelled past and into the engine by the turbofan, providing aerodynamic thrust. The air is further compressed by compressor blades, then mixed with fuel and burnt in the combustion chamber. The expanding gases drive the turbine blades, which provide power to the turbofan and the compressor blades, and finally pass out of the rear of the engine, adding to the thrust.

Two kinds of materials were considered:

Metal, a titanium alloy material's properties and in-service requirements: Young's Modulus, yield strength, fracture toughness sufficiently good high density (the heavier the engine, the less payload can be carried) resistance to fatigue (due to rapidly varying loads) resistance to surface wear (striking water drops, large birds) resistance to corrosion (salt sprays from ocean entering the engine)

Composite, carbon-fiber reinforced polymer (CFRP) material's properties and in-service requirements: low density (half of that of titanium) low weight low toughness (potential deformation of blade by bird strike) The problem posed by choosing CFRP for a blade can be

overcome by cladding, which means giving the CFRP a metallic leading edge. (from Ashby/Jones, modified and abridged)



Case Study: The Turbofan Aero Engine

Task 1. Presentation Model

Good morning, Ladies and Gentlemen, the topic of my presentation today will be the Turbofan Aero Engine. We will address three aspects; I will begin with the way the engine works. Then two materials that can be used for the engine's blades will be discussed, first a titanium alloy and next a carbon fiber reinforced polymer (CFRP). As is well known, a turbofan engine is the most modern variation of a gas turbine engine. It is widely used to power large planes because of the high thrust it generates and its fuel efficiency. This aerodynamic thrust isprovided by air propelled through the engine by the turbofan. As can be seen from Figure 1, the air is compressed in the compressor, then mixed with fuel and burnt in the combustion chamber. The expanding gases drive the turbine blades and finally pass out of the rear of the engine, adding to the thrust. Having briefly shown how a turbofan engine works, we will now look at two kinds of material which can be used for the blades, a titanium alloy and a carbon fiber reinforced polymer (CFRP). As can be seen from the next slide, the alloy can be considered as a suitable material because of its sufficient hardness, high tensile strength and fatigue strength, the values of which are shown in this table in Figure 2. As to in-service requirements, the alloy's excellent resistance to surface wear and corrosion would make it a material of choice. Its high

density, on the other hand, leads to a reduction of payload, which clearly counts as disadvantageous. Let's now address the second kind of material mentioned above, namely carbon fiber reinforced polymers. As the graph in Figure 3 shows, CFRP exhibits much lower density than the alloy and allows for more payload. On the other hand, the material's low toughness can lead to damage of the blades resulting from, e.g. bird strike. 86 KEY To conclude, we can see that basically both materials discussed above can be applied in the construction of the turbofan's blades. But future development will probably show the replacement of weighty alloys by CFRP to allow for maximum payload. The problem of potential damage of blades from CFRP can be overcome by cladding, which means giving the material a metallic leading edge. Thank you for your attention, Ladies and Gentlemen. I'll be pleased to answer questions now. [2,c.41-44]

(Iris Eisenbach English for Materials Science and Engineering ,1st Edition 2011).

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