

# Sonalika

College Magazine

2018



राजकीय इंजीनियरिंग कॉलेज, सोनभद्र  
Rajkiya Engineering College, Sonbhadra

/\* This pdf don't contain all pages of Magazine \*/

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## Message from Director

Prof. V. K. Giri



With great pleasure, I would like to take this opportunity to express my thoughts as founder Director of Rajkiya Engineering College, Sonbhadra. The college has been established in the year 2015 by Government of Uttar Pradesh for imparting the technical education to the students willing to develop themselves as technocrats. The college is an associate institute of Dr A. P. J. Abdul Kalam Technical University, Lucknow. The main aim of this newly established institution is to educate the students in such a manner so that over a period the institute may be recognized as one of the reputed leading institutions in the field of engineering and technology at the state/national level. The goal is to provide high quality knowledge in science, humanities, engineering and technology in such way that a high-quality human resource in different area of technology can be produced.

The campus is spreaded over 30 acers of lush green land. The environment in the campus is calm, quiet and is surrounded by beautiful natural mountains, hills & lakes. The campus consists of seven amazing buildings and a fabulous sky open auditorium (Student Activity Center). The campus is well facilitated with separate Boy's and Girl's Hostels, Laboratories, Library, Workshop, Cafeteria, Mess, Stationary shop and other facilities for recreation.

It's a matter of great pride for the REC, Sonbhadra family to launch our first ever annual magazine "SONALIKA-2018". With the great pride, I appreciate the efforts of the team behind it and convey my best wishes to them.

### Message from Dean Academics

Dr. Amod Kumar Tiwari

It gives me great pleasure to note that REC, Sonbhadra has entered into the noble academic tradition of bringing out its first college magazine "Sonalika 2018". A college magazine is an authentic record of the various activities that are undertaken by the college throughout the year. Even a cursory glance at the contents of the magazine is enough to show that REC Sonbhadra has been progressing by leaps and bounds not only in academics but also in extra-curricular activities. I am sure, soon the college will reach the zenith of progress and achievements that will add a great luster to the college. I heartily congratulate all those who have taken pain to bring out this magazine adding a glorifying and colourful petal to a wonderful flower called REC Sonbhadra.



### Message from Dean Student Welfare

Dr. Devendra Kumar Tripathi

Rajkiya Engineering College Sonbhadra takes deep interest not only in teaching, learning but in all-round development of students by providing various opportunities for self development. Our mission is to engage and support the students throughout their learning experience. We promote and facilitate this growth through various extra-curricular activities. I am glad to know that Rajkiya Engineering College, Sonbhadra is publishing the very first edition of the Annual College Magazine "Sonalika-2018". The magazine often reflects as mirror of the academic and cultural activities of the college and provides a platform to the students to exhibit their grit and guts.



## Message from the Editor`s Desk



**Dr. Bhavna Arora**

Dept. of Applied Sciences

Dear Readers,

It's a matter of great pride and joy to bring to you the very first issue of 'SONALIKA', the college magazine of REC Sonbhadra for the year 2018- 2019. Putting a magazine together was no child's play. The editorial team members have worked rigorously for many days and spent sleepless nights to give shape to this vision. This magazine gives an insight into the campus life, academics and various co curricular activities. SONALIKA is a platform to the creative and literary minds and exhibits the dedication of the students.

I would humbly take this opportunity to thank the Director of REC Sonbhadra who has been a source of constant inspiration and made every effort to realise this dream.

I would like to thank all the team members for going that extra mile and contributing a great deal of time and effort. On behalf of the editorial team I express my deepest gratitude to all the faculty members for their support in bringing out this edition.

Happy Reading!!!!



**Dr. U. P. Singh**

Dept. of Applied Sciences



## Message from Team “Sonalika”

It is a matter of great pride and immense pleasure to be a part of the editorial board of the first issue of the annual magazine of REC Sonbhadra ‘SONALIKA’ is an attempt to provide a platform to the students to express their views, ideas, and thoughts in the form they excel so that the interchange of these expressions lead to the overall development of the youth and hence the development of the society in general.

The articles we received for the magazine reveal that the technical minds of our society are no less when it comes to creative writing or coherently expressing their philosophical and technical minds. The articles of this issue vary from rich experiences of the students at REC to the expression of their opinion about various issues and technical aspects. The issue also includes very well written poems both in English and Hindi, creative drawings and good stories.

Our first magazine is the effort of the whole REC Sonbhadra family and we hope that as our family grows future editions of this magazine will be much richer in variety and content. We would like to thank all the students and faculty members for their contributions in the form of articles, poems, stories, drawings and all other things. We also thank Dr. Bhavna Arora and Dr. U.P. Singh for being such a great support in this initiative. We hope the tradition that we are starting today will lead towards the glorious history of this institute.

**Sonalika - of the students, for the students, by the students**



## About



Rajkiya Engineering College, Sonbhadra was established by the Government of Uttar Pradesh in the year 2015 with one branch, Computer Science & Engineering with an annual intake of Sixty. Later on in 2016 two new branches Electrical Engineering and Electronics Engineering with intake of 60 each have been started. The college shifted to its own fully residential campus located at Churk, Robertsganj, Sonbhadra in the month of July 2017 and all academic activities from the session 2017-18 is running from its own campus. The campus is spreaded over 30 acres of land. The environment in the campus is calm and quite.

### Vision

To be an esteemed educational institute in the country, and there by establish unique identity for the development of high quality knowledge and human resource in diverse area of the technology.

### Mission

- To take leadership role by providing advanced knowledge in applied sciences, humanities, engineering and technology.
- To serve the society by providing superior knowledge, developing innovation skills and functioning as an organized high learning centre.
- To nurture excellence in teaching, learning, creativity and translate the knowledge into practice for the welfare of the society.
- To establish ethical values, creating networks with other leading institutes of high learning and research in order to cater significant contribution for global development.





# Club Reports



# Cultural Council

# Cultural Council

**“A nation’s culture resides in the hearts and in the soul of its people.”  
- Mahatma Gandhi**

The REC Cultural Council is committed to support diversity and inspire programs. Cultural Council serves as a conduit for conveying artistic and culture based activities. It aims to unleash the power of culture, to elevate the quality of life and well-being. It ensures that culture plays a major role in developing creative, productive, and independent-minded young people at REC.

With the grace and sharpness of dance moves, to the singing on stage, mastering a musical instrument, debating an environmental agenda, painting a masterpiece, the silent story telling quality and the flexible management, the Cultural Council thrives to be inclusive and welcoming to everyone as creators, participants, and audiences.

Cultural Council always tries to give its best with its different shades of skills and talents, which is only possible because of its dedicated members and diligent mentors. The Cultural Council aims at moulding the personality of students and exposes them to a wide range of cultural events throughout the year. Apart from participating in a multitude of events, the students also get a first hand experience of organizing and managing the events, and of course, it caters to the creative needs of the students. Cultural Council not only teaches to work hard but also to learn social skills, interdependence, perseverance, freedom of expression, confidence and teamwork which all are essential for working with team and for a vivid future.



# Literary Council

**"That is part of the beauty of all literature. You discover that your longings are universal longings, that you're not lonely and isolated from anyone. You belong."**

— F. Scott Fitzgerald

Literature teaches us how to live. Literature makes the reader visit places, experience events, meet people, listen to them, feel their joys and sufferings. Literature mirrors the society and its mannerisms. The literary council at Rajkiya Engineering College, Sonbhadra has truly inspired a lot of students to do that, this esteemed council has been a part of many events which took place in this college. From the astounding performance in "Kavyanjali" during the cultural night of UDBHAV to the celebration of jayanti's of great men like Sant Ravi Das ji, Dr. Bhim Rao Ambedkar. From the mesmerizing recital in Hindi divas to the expression of gratitude in Teacher's day, every single event left an indelible mark of impression on the minds of audience.

The literary council has not only proved its mettle in college events, even in different State and Central colleges. In its first year only the council had won competitions in "RGIPT, Amethi", "KNIT, Sultanpur", "IIT BHU, Varanasi", and many more.



# Shutterbugs & Fine Arts Club

"Taking an image, freezing a moment, reveals how rich reality truly is."  
- Robert Josh

The Shutterbugs and Fine Arts Club (SFAC) is a college activity council that provides materials, instructions and support to those students who are seeking a creative outlet, in addition to their academic schedule. SFAC organizes the events to help students develop their imagination, their talent. It offers opportunities to the students to let their imagination run wild and provides them the right to see the things in different ways. Students learn from one another and share their prowess in different aspects of arts.

**Photography** is an art which can be done in several ways to enhance the beauty and charm of the events. It must be an accurate and perfect shot to capture the emotions and moments which cannot be expressed by words but can be felt by pictures. We reserve the importance of events and people in our lives.

**Fine Arts** cater to the needs of those students who have an aptitude for arts. It provides an excellent platform for students and involves activities like sketching, craft work, stage decoration, paintings etc. The word fine does not much denote the quality of art work but the purity of discipline. The council is the base of every event ranging from the hostel activities to the celebration of various events. This club also organises several competitive events from time to time.





# Sports Council

**“Sports teaches you character, it teaches you to play by the rules, it teaches you to know what it feels like to win and lose- it teaches you about life.”**

**- Billie Jean King**

Playing sports is an emotional, mental and physical adventure. You have the opportunity to learn what you're made of and to determine if you're a team player or a maverick. Participating in sports can enhance your overall well-being. Learning how to function as part of a team is one of the most important advantages of playing sports. Teamwork involves both being dependable as a teammate and learning to rely on your teammates to achieve a positive outcome. Being part of a team allows you to learn social skills and gives you an opportunity to be a leader.

REC Sonbhadra has always been supportive of sports and fitness as it helps in maintaining a healthy mind and body. Students must be allowed to choose the sport of their liking and capability, and must be given an equal chance to excel in it. Keeping this in mind, ample facilities have been provided to the students for practicing and attaining professionalism in their respective games.

Council provides students the opportunity for instruction and participation in a wide variety of sports of which one may develop sound, lifelong leisure value and it also provide an outlet for advanced participation and competition in a particular sport.



**“ Without Engineers, Science is just  
philosophy”**



# Anveshana

## Engineer's Day Celebration

Engineers' day aka Anveshana is the cultural Programme of Rajkiya Engineering College, Sonbhadra, dedicated to the celebration of creativity. It is a stimulating event brimming with youthful dynamism. Anveshan transforms the Students Activity Centre (SAC) of REC into a coruscating kaleidoscope of colors. The minute, one sets foot on the stairs of SAC, one could feel the vibrancy. Outside the auditorium, students could be seen dressed in their ethnic best, the atmosphere... all set for the celebrations. Soon, the chief guest of the evening ADM of Sonbhadra, Umakant Tripathi arrived. Director, Prof. V.K. Giri greeted him with a blossoming bouquet and gave him a very warm welcome. Then the Chief Guest inaugurated the event by lightning the lamp and a melodious 'Saraswati Vandana' - a praise to Goddess Sharda, was sung by the choir group.

The performances opened with a 'Classical Dance' by a 3rd year student which vivified the ambience with her irresistible pulchritude. Some alluring performances of the evening were 'The group dance', 'Singing Performance' and 'An Amusing Skit, depicting the life of Engineers' which broke the silence of the crowd along with the slaying moves of the performers. After a few honorable Chief Guest was invited to the stage to deliver his valuable message for the students. In his speech, he encouraged and applauded the unflagging work of all the performers. He also praised the institution for organizing such spellbinding event. At last, he expressed his gratitude towards Prof. V.K. Giri (Director of the institute). After this the event continued, followed by 'Western, Girls' Group Dance', 'Jugalbandi' and many more eye-catching performances.

Soon, the delightful evening came to an end. Director Prof. V.K. Giri was invited to the stage to deliver a speech. He cherished all the performers and eulogized the organizers of the event as without them this could not have been possible.



A decorative illustration on the left side of the page. It features a central vertical stem with various floral and organic motifs. At the top, there's a large, stylized eye-like shape with a green center and brown outline. Below it, there are several smaller flowers, some with green centers and others with white centers. The illustration is composed of thin black lines and includes small green hearts, white butterflies, and a small white bird. The background of the illustration is a light, textured grey.

Udbhav

**“ Enjoy the journey,  
enjoy every moment  
and quit worrying about  
Winning and losing. ”**

**- Matt Biondi**

# Udbhav

## Annual Sports & Cultural Meet

College cultural events are some of the most happening events. On --- February 2018, the campus of REC Sonbhadra was reverberating with vivacity on the occasion of its first Annual Sports and Cultural Fest, "UDBHAV". The word 'UDBHAV' symbolises origin, the new beginning commencement. It was a two-day event.

On the first day Shri R.P. Singh Superintendent of Police, Sonbhadra graced us with his presence and kickstarted the most awaited moment by lightening the lamp followed by the symbolic release of doves typifying peace and joy. The event started with the robust parade by our students. The event brought the exhilarating speed of athletes in Long jump and Relay race. Our athletes showcased great agility and momentum in Javelin Throw and Shot-put. The savvies showcased their precise conduct in manoeuvring the table tennis, carom and the high brows competed in chess. The performances were smashing and it even compelled our Chief Guest to praise the athletes profusely. The Chief Guest also received the memento from our Director Prof. V.K. Giri.

To keep the evening light and funny, various informal events were also organised. Under Informals, we had plethora of the craziest, the wackiest and the most random events, providing entertainment in myriad forms. This is the platform that brings together performers and spectators characterized by insane, topsy-turvy scheme of things which is accompanied by a lot of excitement and amusement from mind boggling treasure hunt to the mysterious mazes from the campus to the Biz-wiz we did it all. This being the most participated event of the festival as even those who have not undergone any training could steal the show. For Informal events even, the sedentary lot turn up from their rooms and enjoyed. We even had mehndi competition, face painting, bucket and ball and what not.

The cultural night proved to be an unforgettable occasion for all the enthusiastic students. They had Shri Pramod Kumar Upadhyay, District Magistrate Sonbhadra among them as the Chief Guest of the evening. It started with the dazzling classical dance performance by Miss Shweta Sharma of CSE III year.





# Technisia



## A Future Prospective of Semiconductor devices

For the integrated circuit (IC) technology of today low power, high speed, low noise, high packaging density with highly scaled modified new device structures are the desired new norms for further development of the technology. It is therefore important for the designers to think about the prominent design issues related to these devices which are on the verge of knocking the door of the future.

With the advent of new technology, the present day devices are primarily hand-held like mobile phones, palmtops, laptop etc. This has become possible because of the phenomenal growth of the semiconductor industry where there has been a remarkable increase in the number of transistors count on the chip. To increase the number of transistors per chip, the minimum feature size used for the fabrication has been reduced which results into scaling. High-performance (HP), low-standby-power consumption (LSP) and low-operating-power are the several technology alternatives for future technological node. These technology nodes are classified based on the power/speed requirement of the device. The improvement in transistor switching speed while maintaining the power dissipation to an acceptable level can be achieved with the high performance technology node. These devices require high clock frequencies which offer higher power consumption. The low standby power technology nodes offers low off state leakage current and low parasitic currents i.e. low static power consumption. The consumer applications such as mobile phones, iPods, MP3 players etc. require longer battery life which can be achieved by low leakage current absorption at device level. Low operating power options can be conveniently used for deriving high performance with low power consumption for consumer applications such as laptops, palmtops, notebook, tablets etc. The main bottleneck with these designs is to improve the device performance with reduced power consumption.

The scaling has various advantages as high packaging density, high speed of operation, low power dissipation and less cost per chip. However, there are also some serious drawbacks of device scaling like short channel effects (SCEs) and hot carrier effects (HCEs). Hence, to extend the

# Mindscape



Article, Poems, Stories  
and  
much more

## The Beginning The Beauty

**THE Beginning Beauty** It was really a day of thrill, joy and excitement. When the hunt for the college ended and the time to start my college life began. My first day to college. It was the beginning of my dream to go to college and to pursue a higher education. I had so many emotions running through me. It was the first time being in this level. I always wanted to be a serious college student, who would decide what to be in his life. That day I had so many things on my mind from what I was going to wear to figure out where the class number and the floor it would be located at. It was actually a day full of new experiences. I entered the campus and saw many unknown faces. At that time I didn't know that the 'owners' of these faces would become my friends.

The newcomers were taken to the auditorium to introduce themselves to the batch. I heard so many names, so many places, so many dreams and so many 'blah.blah.blahs.' After the introduction, we were told to go back to hostel. Yes, now the most important thing about which was astonished and eagerly waiting to describe was the nature's beauty. My heart and soul filled with joy by seeing the nature's beauty surrounding the campus. If a mere representation can move us so much, imagine the power of the real thing. To sit in the shade on a fine day and look upon the verdant green hills is the most perfect refreshment. Campus was full of greenery and lakes and mountains were adding more beauty to it. Sunshine was delicious, rain was refreshment, wind was bracing up, there was really no such thing as bad weather, only different kinds of good weather. Beauty has a harmonious relation between something in the nature and the campus which was delighting all the students. I also became close to nature, and was able to appreciate the beauty with which college was endowed. The combination of natural beauty and magnificent architecture was making it a wonderful place. Really it was looking as a heaven on earth.

Arun  
C.S.E. II Yr.

## **THE SPIRIT OF LIFE!**

Life is 10 % of what happens to you and 90 % of how you respond to it. This is what we call LIFE. The word seems so small, but it hides a whole world of unseen happenings into it. Life takes a number of turns during our whole span. It is kind to us sometime while on the other hand it can also be cruel for someone else. People who just close their eyes upon seeing the hardships of life are cowards. However, such incidents sometimes change the whole life of a person and take him to the way of success.

Life has a different meaning with respect to everyone: For a teacher, the life may mean to give away his knowledge to his students so that they do not face the hard time that they have seen. For a student, it may mean to fulfill his dreams and desires and live it upto the fullest. The student phase is the most important part of the life as in this life span one comes to know about what one has to do during his whole journey in this world. He gets to learn about religion and ethics, the ups and downs one has to see in order to live the life fullest and also gives him an opportunity how one want to spend his life in the oncoming time. Another most important phase of this period of life is LOVE. Love is a mixture of our feelings of emotions, anger, anxiety, attitude and affection towards others. When you are in love, life changes its priorities, meaning and requirements.

Life seems to be confined with in the kingdom of your loved one's heart. Life is a gift of God and to love and being loved is the best feeling in the life which has no parallel. Everyone in life has a wish to live a blissful life with his partner. Life can only be blissful if you stand with each other in bad time and love each other equally. Hope is one of the key elements of life which keeps our moral high and never let us down.

Always be optimistic and have faith in God. Everything happens for a reason. Sometimes a slight inconvenience makes us to think that we are unfortunate, life is cruel etc but this is not the reality. Spread optimism instead of pessimism. It will light up your life positively. Life is not just all about what we think it of . It trains us and test us at different stages. It all depends upon us how we want to live our life. The more effort we put into

it, the more fruit it bears as gift. Its aim is to serve for yourself as well as for others. Remember, "The Darkest Night of the Hour comes just before the Dawn." The inspiration of the life is to serve mankind. Serve mankind and you will stay blessed.

**Sristy Verma**  
Electronics Engg. III Yr.

## **EUTHANASIA**

Euthanasia aka mercy killing is something that has sparked a huge public debate. Some say it is a sin to take your own life but it is also a need of an hour. It may sound crazy but as Jack Kevorkian said "dying is not a crime", Euthanasia is also not a crime. The word 'Euthanasia' is derived from a Greek word meaning "good death". Euthanasia is the practise of assisted suicide with the intention of relieving pain and suffering. Often, the discussion revolves around the right to life; anti-euthanasia proponents argue that euthanasia infringes on a person's fundamental right to live. What they fail to see is that our "life" as human beings implies death. Without death, we do not have "human life" by its very definition. Like black and white or two sides of a coin, human life cannot occur without death. Therefore, for those that argue that every man has the fundamental right to live, they unknowingly also agree that every man has the fundamental right to die.

Beyond the philosophical implications of man's right to live or die lies man's explicit and fundamental right to choose. As an example, a terminally ill individual who is currently under significant pain may choose to die with dignity, as is his right. To deny him this is to deny him his personal autonomy and is an act that is trespassing on his humanity. While concepts such as dignity are defined by social majority, an individual, possessing all the rights of a human being, may perceive a dignified death to be preferable to constant suffering. He may decide on euthanasia, and this choice should be available to him. Death by its nature is a private affair. Assisted suicide (as is the case of euthanasia) involves direct harm and the



# THE SQUAD



**Vivek Pandey**  
Computer Science  
& Engg. IV Year

*"An avid listener and observer who never backs down from any challenging task assigned to him. The guy who motivated everyone into a team."*



**Sachin**  
Computer Science  
& Engg. III Year

*"The punctual guy of the group for whom work seems 'Life'. The prime example of perception having an expression 'The DesignerBanda Idiosyncrastic.'"*



**Varnika Pathak**  
Electronics Engg.  
III Year

*"The girl who has innovative ideas and manages to complete the work at the eleventh hour"*



**Ayushi Sharma**  
Computer Science  
& Engg. III Year

*"This girl is all laughs and is very dependable when it comes to trusting her with any possible work"*



**Nishant Singh**  
Computer Science  
& Engg. II Year

*"The quiet guy of the group who not only expresses But also impresses"*



**Vaishnavi Sinha**  
Electronics Engg.  
II Year

*"The girl present in every meeting is ever ready to learn new things"*



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