Abacus
The Next Generation

About us / Background

Indian Abacus Pvt. Ltd. is a Pioneer in Abacus Education in India operating from the year 1999. The company built a large network of coaching centres and developed effective Abacus teacher training programs. A few lakhs of Children of 5 to 13 years of age derived benefits of abacus-based calculation skills and enhancement of mental abilities so far. This was made possible by the tireless efforts of the company and the nationwide network. Mr. Basheer Ahamed, CEO & CMD., who steered the company's operations during the years, had also implemented a continuous study based research on the tool-abacus and the methodology adopted for inculcating Brain skills in children using the Abacus tool.

The Abacus Tool - Past, Present & Future

Though there have been several counting and computational manipulatives used over the centuries, only one historical tool has stood the test of time and survived till date: the abacus. The Chinese/ Japanese abacus, hailed as the magic frame of beads stands testimony to the greatness of this method of calculation. The company has used the manual abacus as the base for its training for years. Though it is an ideal model that had contributed to the growth of millions of young minds, it was time to adapt it to the needs of the Digital age, and reach out to more beneficiaries more effectively. The CEO has been driven by this passion to transform the manual Abacus into the version of the future: Indian Abacus -Digital, Indian Abacus – Non Digital, Indian abacus Digital for Tutors with remote control operation and Indian Abacus Non Digital for Tutors the fruits of 13 years of research.

The pioneer in Abacus Education in India, Mr. Basheer Ahamed has applied his vast experience in the field. Creating and managing of the program structure and administering of the program - all these have gone into the invention and implementation of the revolutionary tool. Continuous back-end study of the usage of the abacus, program content, 'learning skills' of different children in different locations and environments have all contributed to the invention of the Indian Abacus - Digital and formulating the program structure.

Mr. Basheer Ahamed, CMD.
- Quest for perfection

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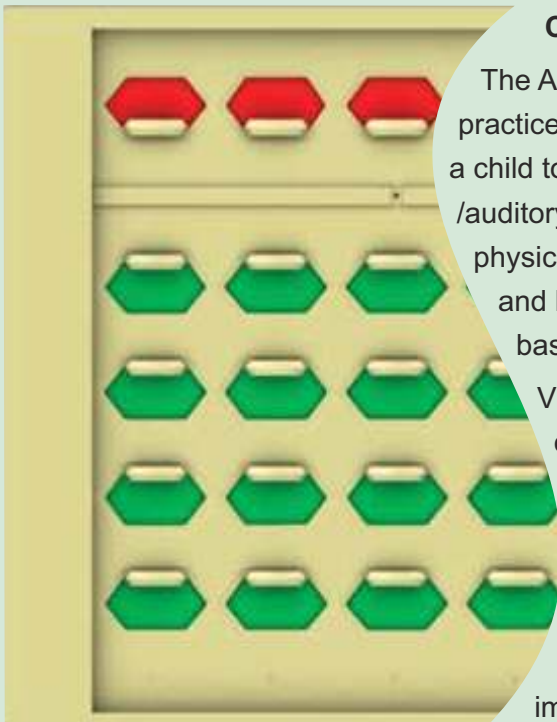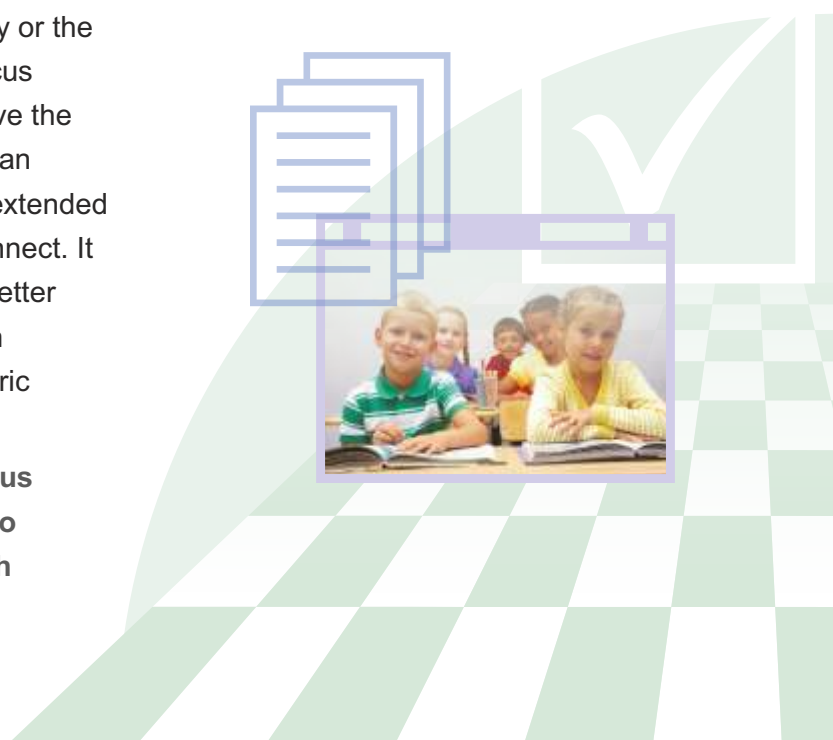
PC / Laptop – working online:

Children aged 5 to 13 years are the primary beneficiaries of this specialised tool - "Indian Abacus – Digital" and the designed on-line program. Pupils can operate the tool in unison with the PC / LAPTOP by accessing the On-line 'learn–practice - test' program at the Indian Abacus site designed specially for the purpose. The tool has the necessary Hardware and Software, which help the students work online or offline, as required.

The child sitting in any corner of any country or the remotest location could now self-learn Abacus skills, practise and master the skills and have the skills tested for certification also online. Indian Abacus – Digital is Indian Abacus with the extended facility to work online giving it the digital-connect. It has also a greater advantage in regard to better visualization that the student experiences in comparison to the conventional or the generic abacus which has been in use till now.

The student while operating Indian Abacus moves the Lower and the upper sliders to unhide and hide the colour images which represent values as before.

The lower sliders when moved towards the bar unhide and display green colour images and similarly the upper sliders when moved towards the bar unhide and display Red colour images. Thus with the display of colour images the visualization in Indian Abacus is many times better – stronger and faster – when compared to the generic Abacus. Since Visualization is the key factor for better visual memory, Indian Abacus is much superior to its predecessor.

Concentration - Enhanced quality

The Abacus tool usage aims to enhance concentration which can be practiced and perfected by children. Concentration is the strong skill of a child to focus on any object and/or a sound-based (Listening /auditory) input. In learning to do Abacus based calculations using the physical abacus, the children strengthen their visualization skills first and listening skills also through prolonged practice doing listening-based calculations.
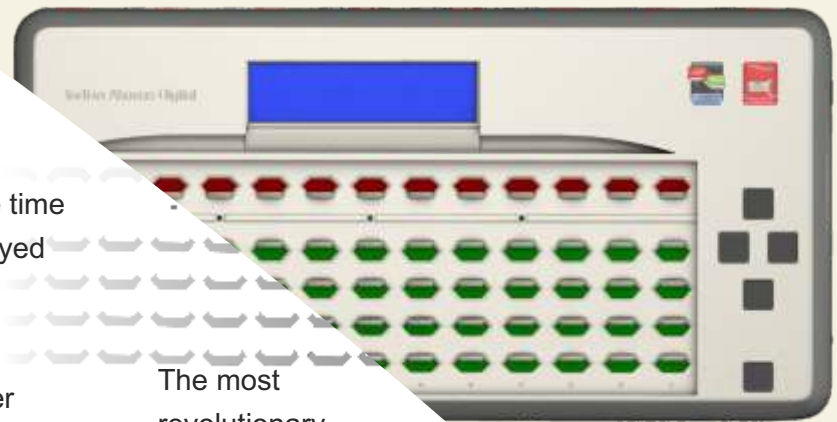
Visualization skill is the first one the child practicing Abacus calculations develops. Visualization or imaging has to have images of objects to capture – whether the process of calculations is physical abacus based or mental abacus based. Instead of the objects which are dull and opaque, bright colours add new dimensions to visualization and strengthen visualization in a great measure leaving strong impressions on the brain cells for visual memory.

On-line working- Learn and Practice

The Indian Abacus – Digital, enables calculations done manually using the abacus independent of the computer but at the same time having the facility to have the answers displayed on the built-in LCD screen.

The compatibility of the tool with the computer enables the posting of the results (answers) through Internet on the dedicated server / site. Evaluation of the results of the assessment would be then & there available. This tool is an ideal aid for online assessments, verification & evaluation leading to certification. Since working to learn and practise is possible on this tool in the off-line mode too, the student doing a number of practice sums could check the answers on the abacus LCD screen.

The Indian Abacus – Digital is thus 'Indian Abacus' plus the greatly augmented facility for better visualization post learning and practicing on account of the display of colour images plus digital capability of transforming the slider movements into the respective values which are displayed on the LCD screen. Online working is an extended and important facility which is built-in.

The most revolutionary introduction of usage of colour (Red and Green) images display in the Indian Abacus – Digital is unparalleled in the **history of abacus education which is the first and the strongest feature of the Indian Abacus – Digital.** (The second unique feature is the Digital compatibility factor. The performance results of children using the Indian Abacus – Digital to answer any online test paper can be verified, marked & evaluated for Certification) The test results could also be simultaneously transferred to the site / server page made possible through compatible software used for Competitions for computations of results, abacus competition for students /Tutors (Test) positions and awards.

The benefits that the children enjoy using the 'Indian Abacus-Digital' are far superior. The striking colour images that flash with the operation of the 'Indian Abacus', reach the eyes of the children much faster and clearer and are far superior in impression-making. For the children using 'Indian Abacus-Digital', the time required to attain the same amount of visualization skills will be far less. Colours are scientifically proven to result in better memory and enable better & faster recall. The colour images are better impression-making and thus enable better memory in comparison to that enabled by conventional abacus.

The clarity and better visualization is ensured since the non value beads are in closed position and do not disturb visualization process.Every operation / number added, subtracted, multiplied or divided result in the formation of colour images corresponding to values, and act as Flash Cards. The no-value slider positions do not disturb the visualization process as it happens with the no-value bead positions of the Conventional Abacus.

VISUALIZATION

Visualization – a key factor of Abacus Calculations

Visualization not only enables winning ability through speed, i.e. less time taken for a calculation but also takes the Abacus user into a mental plane which is a unique move from physical to mental plane. Better visualization process through Indian Abacus – Digital makes photographic memory much stronger. In the mental plane again, when the object is clear, the distraction becomes nil. The abacus calculation through visualization therefore takes the child during the process to a state of total concentration. Indian Abacus – Digital enables stronger focus through better scope to concentrate.

Visualization - Enhanced quality

Indian Abacus - Digital with its improved design features makes possible more qualitative visualization post learning & practicing than that with the conventional Abacus which does not offer required scope for the visualization to attain its pinnacle. The colour images and the representing values are very clear and more impacting through the usage of the Indian Abacus - Digital.

No difference in operation nor the values

Children trained in Conventional Abacus can switch over to practising with the Indian Abacus – Digital Indian Abacus – Non-Digital, Indian abacus Digital for Tutors and Indian Abacus Non-Digital for Tutors as there is no difference in operation nor the values. The changeover will be seamless and smooth and the students can continue pursuing their training and practice with the Indian Abacus – Digital with no time loss.

Better image capture

Image capture is vividly greater through colour image projections in the Indian Abacus - Digital than the dull and mundane colour beads of the conventional abacus, which are all uniform and homogenous. In conventional abacus since the Brown colour of the beads, Value and non-Value beads, through their bead positions actually blur the view and also end in stress to the Eyes.   Keeping these vital aspects in the mind and working towards Flash Card like abacus value positions, the Indian Abacus - Digital was engineered to its current form.

Abacus skills anywhere & anytime

Any skill-based program to benefit children at any location and at any time (breaking the barriers of Place & Time) require two basic characteristics

1. The program should contain a comprehensive package of 'learn-practice-test' modules in its scope.

2. The physical tool should have the compatibility with the inbuilt facility (hardware & software) to access a PC / Laptop and website offering the program.

Indian Abacus–digital enables accessing the destined website / server through computer landing, thus removing past obstacles - Class-room learning and fixed time learning. It is therefore a Virtual class environment for the child opting to learn Abacus program using the Indian Abacus-digital tool and the Abacus skills learning site / server.

Method and Time:

There is absolutely no difference in working / learning at the centre and working / learning / practising online but for the additional advantages of working online. In online working self-learning could be best attained, as all that is required for it are supported through the website / server. It is better to work for minimum number of hours with help of a parent in a dedicated manner, as is done in the classroom. The learning and practice as recommended would give the best of results.

The student would not have the problems of missing classes, as he / she could sit and compensate on the same day or on any day suitable within the framework of time for the level / program.

Immediate correction and verification

Looking at the sums on the computer screen, the student can work on the Indian Abacus manually, After the completion of every sum, once the student Enter / submits the answer, the page on the website would indicate whether the answer is correct or incorrect to redo the same. The student would then and there get the indication and hence there is a possibility to check the answers and the steps adopted and correct the Abacus operation for the sum. The movement of the sliders could be checked and the sum could be redone to arrive at the correct answer. The facility for the student to execute self-correction is a great advantage and the student would instantly know if a mistake has been committed and the correct method of working of the sum. Online working has this distinct facility. Further, for every operation or manipulation on the Abacus, the answer would be displayed on the LCD screen of the Digital Abacus.

Online help

The student while learning could get to see the answers on the display and hence the confidence levels are firmed up then and there. Even if the working / answer is wrong, the student take the Help route and get the clarification done then and there and fixing of the errors is easy.

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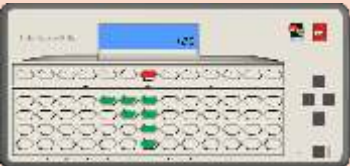
Assessment module

The student can opt to face the test for the concerned level / program any time after learning, practising and perfecting the skills on Abacus for the level. The assessment module gives the opportunity to get tested immediately after completing any level or program.

ANYWHERE & ANYTIME

1. Colour of Frame:	Indian Abacus-Digital
	Light cream colour, a visually friendly colour, functions here as the best background for the colour images of the value positions–Green (lower sliders) and Red (Upper sliders).
Conventional Abacus	The colour of the frame (black) and the beads (dark brown) on a contrast background. Needs vast improvement to give better clarity of value & no-value beads.

2. Slots / Rods	Indian Abacus-Digital
	The slots in which the sliders move have an ideal fit and the slider movement is very smooth and continuous.
Conventional Abacus	The rods and beads have more-play due to imperfect fit. The movement therefore is not comfortable and the beads do not stay fixed in a position.

3. Sliders / Beads	Indian Abacus-Digital
	Sliders are chosen to hide and unhide the value positions, displayed through the colour (Red and Green) images. Visualization and Photographic memory is100%.
Conventional Abacus	Beads and background are of close colours (Brown and Black) and there is no differentiation, which is the weakest feature of this version of manual abacus.

4. Stress	Indian Abacus-Digital
	The images are of bright and contrast colours. There is absolutely no confusion and the stress level is nil in the present invention.
Conventional Abacus	The frame and images without contrasting colours cause confusion. Imaging /visualization not so strong and stress to Eyes have been noticed.

CONVENTIONAL ABACUS

5. Built-in Features	Indian Abacus-Digital
	The Indian Abacus–Digital has two additional features built into it, owing to the objective of the inventor to enable the tool to have online access to the destined website offering Abacus based skills through its package of Learn-Practice-Test modules. Offline, the tool also displays the output of the working on the Indian Abacus Digital. The answers / the output of the working are displayed on the LCD screen.
Conventional Abacus 	The Abacus is basically a generic one to work only manually with limited scope for visualization as mentioned above. The ubiquitous nature of the Indian Abacus – Digital is totally lacking.

6. Connecting Computer / Laptop & Self Learning	Indian Abacus-Digital
	Students Can Learn-Practice-Test through the dedicated modules - under parents guide lines.
Conventional Abacus	Not possible for online learning

7. Anywhere / Time	Indian Abacus-Digital
	Can Learn-Practice-Test accessing programme website through computer / Laptop without the help of Tutor, anytime, even late night.
Conventional Abacus	Not possible for online learning

Indian Abacus Digital for Tutor

The Indian Abacus - Digital for Tutor is bigger in size, This is designed for use by Tutors for Abacus Mental Arithmetic Calculations. (The Indian Abacus digital for Tutors can be either hung on a wall, or placed on a stand to explain to the students how the Abacus is to be operated) The Tutor Abacus is to explain to the children getting trained in the subject to gain the Brain skills.

Indian Abacus Digital for Tutor – Slots, Sliders / Colour Images

Each slot in the Indian Abacus – Digital for Tutors will have 4 lower sliders and 1 upper slider. (All the lower sliders could be moved towards the bar individually and together also) Similarly they could be moved away from the bar individually and together also. Each lower slider, when individually moved towards the bar, unhides a green colour image. Similarly, the upper slider could be moved towards and away the bar. By moving towards the bar, the upper slider unhides a red colour image, and moving within the slot – up and down, hide and unhide the colour images which mean values

Oral Sums Call out & Remote Control

The Indian Abacus-Digital for Tutors is designed using Hardware and software for various other training & testing requirements. Calling out of sums (orals) using inbuilt Mp3 Player – the system provides calling out of oral sums – the speaker provided on each Tutor's Abacus enables reaching of the output to the entire class room; Deferred Displaying of answers after verifying the children's answers; Conducting the assessments using the countdown timer; Setting time duration for the tests when conducted. Using the Remote control unit, the tutor could control all the activities from one place simultaneously observing the students' individual performances. (The tutor can more dynamically work optimizing the time required for different activities)

The LED screen

The Digital Display screen, an integral part of Indian Abacus – Digital for Tutors, is connected through the required hard & software, so that when the sliders are moved on the slots towards and away from the bar, display the corresponding values on the digital display screen. (When the sliders are moved for a sum while explaining or demonstrating, the movement of the sliders post the values and numbers on the Digital display screen) The Tutor while explaining and the student while working to learn on the Indian Abacus - Digital – for Tutors, could check the values / numbers of the images projected.

The design

The design of the Indian Abacus Digital for Tutor enhances the scope for largely improved quality learning. The skill to visualize post-learning will be better since the images for the value positions in Indian Abacus are highly distinct due to the colour. Further the digital connect has been given to the device, both the Student Abacus and the Tutor's Abacus. The movement of the sliders to the value positions apart from displaying the colour images also with the aid of the hardware and software built in enable the value in numbers are flashed on the LCD screen. (The value displayed corresponds to the Abacus based manipulations done using the sliders – be it Addition, Subtraction, multiplication or division) The tool thus aid the Tutor and helps in better training & so better learning for students.